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ATARI INTERFACE

VOLUME 4
MAY 1992

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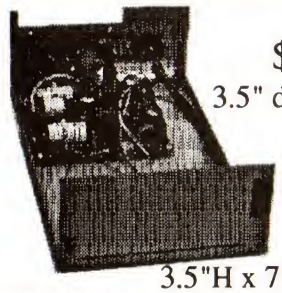

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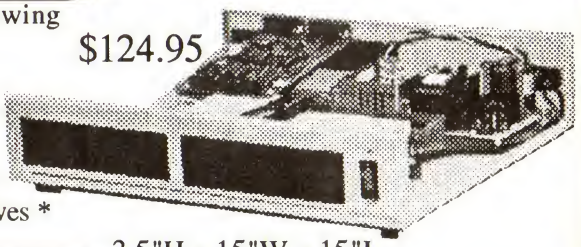

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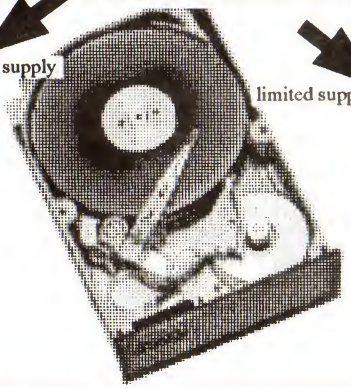

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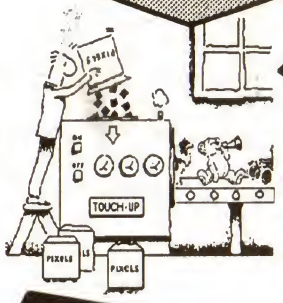

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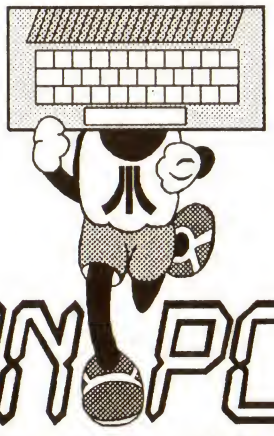

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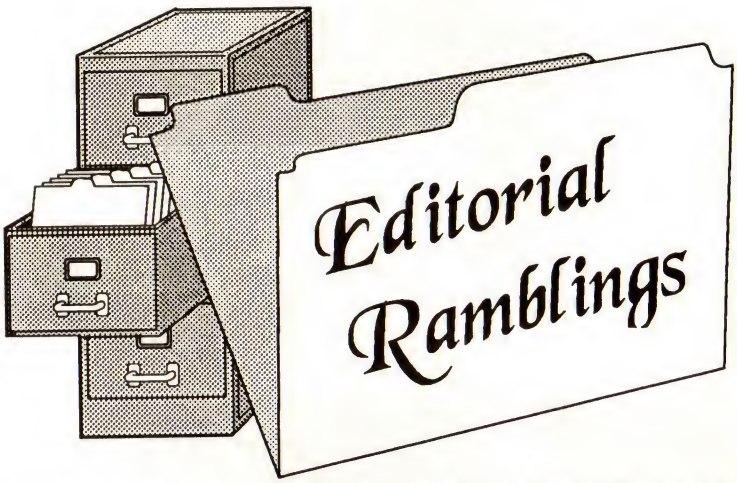

Editorial Ramblings

This issue is getting to you a little later than we had planned. Because we were going to the Toronto show and had a very good chance of getting a peek at the Falcon 030, we decided to hold the issue for a week. That way, we could get a show report and a Falcon preview article into this issue.

Well, we did go to the Toronto show and we did get to see the Falcon 030 (see the write-ups in this issue). But, we both also caught a *very nasty* flu bug that wiped us out for a whole week-and-a-half.

So, this issue you now hold in your hands is a few weeks later than normal, and at least a week or two later than we would have liked.

We hope you'll find that the issue's contents, especially the Falcon 030 article and show report, more than make up for the delay. While the Falcon 030 is definitely not a replacement for the Atari TT, we think Atari has one heck of a great product for the home computer market in the Falcon. For multi-media, entertainment and other areas relying heavily on graphics and sound, Falcon 030 simply can't be beat.

Bill & Pattie Rayl

ATARI INTERFACE

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This month we look at graphic packages on the ST. Background image and EPS artist come from Soft-Logik Publishing's collections. Monochrome monitor graphic comes with Arabesque, and the lake picture is a GIF image courtesy CompuServe.

From The Reader's Viewpoint

Dear AIM,

I guess the only certainty in life is the certainty of change. So it is with me. After twenty plus years of career, a veritable lifetime of success in a highly technical area and learning all the myriad rules of a very bureaucratic, far-flung system, the time has come to move on. With budget cutbacks, promotion slow downs, and the "downsizing" in the wake of the Kuwait adventure, the time has come.

Paraphrasing the words of Paul Simon, "I guess my life of education hasn't hurt me...I can read the writing on the wall." The writing was clear and succinct. It said, "Get the hell out of here." I'm on my way out the door.

I haven't had to go looking for a job since 1972, when I got my draft notice. I've always known what to wear, how to wear it and how to interact with the people I meet in my profession. Now, I haven't a clue to what's going on. I can't even tell who's who by the ornaments on their shirts. It's scary.

I haven't moved since 1985, and I've never traveled with a horse before, much less two of them. I've never had to move my own stuff further than across town. And, I always knew that, when I got there, my paycheck would be waiting and I'd have something to do. It's just not that way anymore.

Oh, everything hasn't been sweet. Civilians seldom get shot at, get to shoot back even less, and almost never get *told* to stay in one place, get shot at and don't shoot back! Civilians get to choose their clothes, for the most part. And, they don't get in trouble if they forget some ornament, or wear the wrong socks or forget their hat. (Who wears a hat in America anymore?) Civilians almost never have to pick up cigarette butts in the dark, or spit shine a toilet at 2AM, or watch a friend get shot to death, mutilated or blown apart.

Part of the human condition is that we adapt. That may be why we run the planet, instead of the ants and cockroaches (although that is sometimes questionable). And I'm sure I'll adapt. It will be painful, and I'll make some mistakes, but I'll adapt.

So it is with computers. Time brings change, and change hurts. My old Mega, with all its cheats, add ons and adapters, just wasn't a challenge anymore. The software just wasn't there. It was too complicated and expensive to upgrade. And, it was just tooooo annoying to deal with the Hitler complex of our local dealership.

Here's an example. I go in and ask for a 2400 baud modem. "We don't have any and haven't had in months," I'm told. "We have some 9600's for X dollars." Well, says I, can you get me a 2400 baud modem? "Maybe, but does this show you what we think of 2400 baud modems?"

I think about it, and the next day I call back and tell them to forget it, I'll get the modem elsewhere and I don't like the way they treated me. "If you don't like it, then don't come back," I'm told. With support and service like this, is it any wonder Atari stays in last place?

The last six months I had the Mega, I ran strictly as a Mac, thanks to Spectre GCR from Gadgets by Small. The Mac environment is a "mature" version of GEM, loosely speaking. It is awesomely "user friendly," and it's simple to install and operate. It is the best compromise between Atari and MS-DOS I've seen.

There are more places to buy software and hardware (I can avoid the Hitlers and Goerings), and developers don't go out of business with the amazing rapidity Atari developers do. And the big developers don't drop Mac support because of lack of sales. Apple doesn't make hardware changes and then keep them secret.

So, I sold the Mega. I made the guy who bought it a good deal. Then, I bought a Mac. I'll miss the Atari. It did some great things, and it taught me a lot. But, the time has come to move on. Change rushes in on us and we all must change or perish.

I'll miss all the friends I made in Atariland—Tim, Bob, Steve, and Brian and his dad. But, a lot of my old friends are here in Macland—WordPerfect, Timeworks and others—sometimes under different names or logos, but still the same support.

Many ST people have gone to the Mac; maybe it's a logical progression. At any rate, good bye and God bless you all. Should you ever get back to God's country, give me a call. I promise I won't answer the phone in Spanish.

Paul Stampfli,
author of The Right Brain,
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Dear AIM,

As spring approaches, and Atari Corp. has once again failed with many of their promises, I hear many of my friends talking about switching to IBM or some other computer....

IBM with all it glitz and glamour, seems to be the computer of the future. But is it really what anyone really needs?

Definitely *not!!!*

So many people get caught up in this keeping up with Joneses syndrome. Before you think about switching computers due to Atari's lack of customer support ask yourself a few simple questions, you may be very surprized at your answers.

What are *'my'* needs for a computer? Most people will choose either word processing or playing games.

Can an IBM do word processing better than your Atari? Certainly not! Can it play games better? Nope. Does your Atari do these things satisfactorily for you?

Yes, but... *But What?* But the IBM has so many new things coming out for it all the time.

Ah Ha!!! Now we have gotten down to the real bottom line, in why you are considering switching computers. The IBM has new stuff coming out all the time. If it wasn't for this fallback, you would be perfectly happy with your Atari, right?

Ok, now is the chance for you to make a difference, and make Atari know how you feel. Most all of us are in sincere agreement, that we love our Atari's, and would never switch if Atari would just start listening to our wishes.

The Solution:

Write to Atari Corp., Attention Jack Tramiel, Sam Tramiel, and Bob Brodie.

Send *each* of these three a copy of your letter, and tell them in no uncertain terms, that if they don't wish to lose all of their loyal Atarian following, they need to bolster their support in both hardware and software for both the 8-bit and ST line of computers. Tell them we are tired of waiting, and we want action *now!!!*

If each and every Atarian in this country would take the time to write to these guys, and tell them this, maybe we would start seeing the new releases here in the US instead of them all going overseas.

The time to act is now, and if *you* don't do it, then you are not a true Atarian. *Do it!* We can make a difference!

Write to these guys at:
Atari Computer Corp.
1196 Borregas Ave.
Sunnyvale, Ca 94089-1302

Jason,Vancouver, WA

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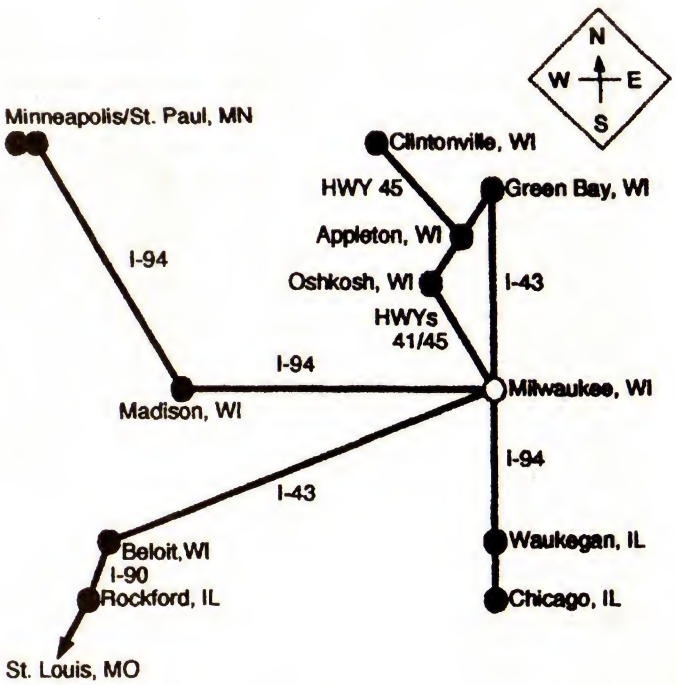

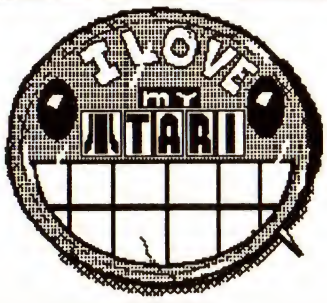

ATARI BULLETIN BOARD

Lexicor Recalls Software

Lexicor Software has recalled all copies of both Rosetta and Prism-Render being sold by RIO Computers. Lexicor alleges that RIO is selling illegitimate copies of these packages. If you purchased your copy of either package from RIO or the package has a "RIO" stamp on the disk or "RIO" appears in the "ABOUT" dialog, send your original diskette to Lexicor Software, ATTN: Rosetta/Prism-Render Recall, 58 Redwood Rd., Fair-Fax, CA 94930.

All recalled copies will be examined for authenticity. If the package is legal, it will be returned to you with a $25 coupon good towards any Lexicor product. If the copy is illegal, Lexicor will keep the package and send you a "legal courtesy copy" of the software and a choice of registering the software for full warrantee and upgradability or the $25 coupon. For more details, call Lexicor Software at (415) 453-0271.

64 Megs!

Gadgets by Small has confirmed that they are developing a 64 megabyte memory upgrade card for use with the SST 68030 accelerator. The board, which will plug directly into the SST's processor-direct slot, will give you access to a full 64 megabytes of system memory. The board will reportedly use standard one or four meg SIMMs and will act as "very fast, burst mode compatible" RAM! No price or shipping date was mentioned.

Warp 9 Ships

CodeHead Technologies (formerly CodeHead Software) has released Warp 9, the upgrade to Quick ST. Over three months of coding has gone into the update. Literally dozens of bugs and compatibility problems have been eradicated in Warp 9. It now works fine with FSM GDOS, and problems have been eliminated with Touch-Up, PageStream, and many other programs where redraw and other problems existed.

Additional features over Quick ST 3.0 include a built-in, customizable mouse accelerator and the ability to use function keys to select buttons in alert boxes. Warp 9 speeds up most processes anywhere from four to 12 times! Retail price is $44.95. Owners of any version of Quick ST or Turbo ST can purchase Warp 9 for only $20 by sending in their original disk. CodeHead Technologies, P.O. Box 74090, Los Angeles, CA 90004, (213) 386-5735 (Mon-Fri 9AM-1PM Pacific Time).

Gribnif News

Gribnif Software has released Convector Professional, an auto-tracing package that converts raster (bitmap) images to vector graphics. The package can load IMG, Degas, IFF, TIF, PCX, PIC, Arabesque, MegaPaint, NeoChrome and other bitmap graphic formats. Vector graphics can be saved in a variety of formats, including Arabesque, Calamus CVG, GEM, GEM/3, Encapsulated Postscript (EPS) and MegaPaint.

Convector also runs a desk accessory, allowing it to be used as an Arabesque module or to vectorize any GEM screen display. It can even be used as a MegaPaint module. The program includes special support for the vectorization of entire fonts and symbol tables, which can then be saved in individual vector files for easy importing into most popular font editors. Convector also generates single vector objects (as required by most font editors). Suggested retail is $149.95.

The Gribnifs have also brought Pure C to the North American market. Pure C is the latest version of Turbo C Professional, previously released by Borland Germany. The system includes an editor, compiler, linker and debugger. It works on all Atari ST and TT computers, fully supporting high resolution and extended color displays.

The ANSI standard compiler supports type checking and function prototyping. When an error is found during compiling, simply double-clicking on the error message places the cursor directly on the offending source code line. Libraries are included for the TT's math co-processor, FSM-GDOS support, and the Borland BGI Graphics Library for compatibility with PC programs.

The Assembler is five times faster than before, and supports local labels and longer symbol names. It can also generate code for all 680x0 processors, up to the 68040. It also generates code for the 68881 and 68882 FPUs. The Debugger is a full source level debugger with its own graphical environment.

It allows any number of windows to be open at once. Windows can include source code, variables, assembly, CPU/FPU registers, memory dumps, watched expressions and the system stack. Breakpoints can be configured for a variety of specialized situations. There's even a special "animation" mode, where you can watch the program execute one line at a time.

Pure C requires at least 1 megabyte of memory. Retail price is $275 US (with $7 s/h in US, $10 US in Canada). Turbo C owners can upgrade for only $175 plus shipping (must include original Turbo C master disks). Gribnif Software, PO Box 350, Hadley, MA 01035, (413) 584-7887.

Flash II Released

Missionware Software released Flash II at the Ace '92 show in Toronto. The long awaited "upgrade" to the most popular telecommunications package on the ST is finally available.

The package boasts full compatibility with Flash's old DO files, with the addition of many new scripting features for added flexibility. The software also supports up to 30 function keys, 10 of which are global and the other 20 specific to each system.

Flash II supports TTY, VIDTEX, VT52, ANSI, VT100, VT101, VT102, VT200, VT300 and Prestel modes. Built in file transfer protocols include ASCII, Xmodem, Ymodem, Ymodem-G, Zmodem, Modem7, WXModem, CIS B+, Kermit, SEAlink and Telesoftware (for Discovery/Prestel systems).

The type ahead buffer supports up to three lines of text which is fully editable using the cursor, delete and backspace keys. The Return and Enter keys perform different functions, depending on the configuration. One can be used to enter forced carriage returns into your message, while the other is used to send the message.

The 226-page manual includes a tutorial, detailed section on all functions of the program and a 50-page section explaining (with examples) the DO scripting language. Retail price is $49.95 US plus $4 shipping and handling. Upgrading from any old version of Flash is $30 plus $4 shipping. You must include your original Flash disk as proof of ownership (the disk will be returned to you). Missionware Software, 354 N. Winston Drive, Palatine, IL 60067-4132, (708) 359-9565.

MacRead

MacRead is a new utility from Goldlead Publishing that lets you read data files directly from a Macintosh formatted HFS hard disk or a Spectre formatted HFS floppy disk. You can then store these data files on an ST disk. HFS is Apple's current disk format, and is much faster and more flexible than the older MFS format.

MacRead lets you work with both Macintosh and ST/TT computers. Use your Macintosh (or Spectre emulator) to create your artwork or other files, then copy them to your ST/TT. Images, illustrations, text, data, PostScript files, and more can easily be read from a Mac disk for loading into an ST/TT software program. MacRead is available now for $49.95. Goldleaf Publishing, 700 Larkspur Landing Circle, Suite 199, Larkspur, CA 94939, 415/257-3515.

I-Koen Design News

I-Koen Design, publishers of Radical Type magazine, has moved from Canada to the US. Publication of Radical Type will continue after a two month break following the March/April '92 issue. Radical Type is the only magazine dedicated to Amiga and Atari publishing, with an emphasis on PageStream, ProPage and Saxon Publisher (the latter two being Amiga packages). Subscription rates for 1 year (6 issues) are $18.95 US ($24.95 US for foreign subscribers).

The I-Koen Design Guide to PageStream is available. The Guide contains reference charts for fill styles, halftone screens and other effects at 300 and 1200 DPI output. Help on writing macros is included, as are font samples, character set comparison charts and keyboard reference charts for graphic characters. The 20-page guide retails for only $6.95 US.

Finally, I-Koen has released Idea Forms One, a package of over 200 templates and forms for personal or small business use. The templates are divided into 11 design series, allowing you to maintain a uniform appearance over a range of documents.

Requires PageStream 2.1 or higher. Includes 3 disks and a 24-page manual. Retail price is $39.95 US. Contact M.LOADER1 on GEnie or look for Mike Loader in the Soft-Logik area in CompuServe's Atari Vendor Forum (GO ATARIVEN).

STacy Battery

DragonWare Software announced the Dragon Batter Kit, an internal battery for the STacy portable. The kit adds only 2.2 pounds to the STacy and includes a dealer-installed cable and jack and one 2.2 amphour battery. On a stock STacy, this gives over two hours of use on one charge.

The battery has a fast charge option that recharges the battery in about two to three-and-a-half hours *while* you use the computer. The Dragon Battery Kit has a suggested retail price of $94.95. DragonWare Software, PO Box 1719, Havre, MT 59501-1719, (406) 265-9609.

SilkWare

If you purchased a graphics tablet from EI/O or QMI and find your tablet no longer workes when you upgraded your TOS, SilkWare has just what you need. If you want to add a graphics tablet to your ST, SilkWare to the rescue again.

SilkWare has announced a pair of graphics tablet drivers for the ST. One driver supports the Mitsubishi tablet (as sold by QMI) and the other is for the Summagraphics tablet (which EI/O supported). Both drivers are "painstakingly TOS-legal," so as to work with all TOS versions, all processor speeds and all resolutions. Price, including shipping, is $29.95 for either driver. SilkWare, ATTN: Mark Slagell, PO Box 3260, Madison, WI 53704.

MIDI Maze for Lynx?

A recent reply to a letter in Video Games and Computer Entertainment indicated that while MIDI Maze was once under consideration for development on the Lynx, Atari's Entertainment division is not currently pursuing the idea. VG&CE magazine has proposed a letter writing campaign to help get Atari "off the fence."

If you would like to see MIDI Maze on the Lynx, write to Atari Entertainment, 330 N. Eisenhower Lane, Lombard, IL 60148.

If anyone asks, tell 'em you saw their ad in AIM!

Right on Target

David Plotkin
Contributing Editor

There is something of a "Catch 22" in becoming a new Atari dealer which may account for the lack of enthusiasm.

I was recently reading my copy of AtariUser, an ST Magazine that manages to do a pretty good job of covering events in the Atari world. In this particular issue, the staff of AtariUser had undertaken to identify all the Atari dealers in the US.

They had, after some negotiating, received from Atari a "highly confidential" nationwide list of about 1,000 dealers (I have to wonder why the list is confidential). They were initially encouraged by the numbers—1,000 dealers works out to at least one dealer in every major city. They were, however, suspicious, as we all have heard of large areas with no dealer and stories of having to drive five hours to the nearest Atari dealer.

They decided to try verifying that the list was accurate by phoning as many of the dealers as they could. Pretty soon, the awful truth began to dawn, and by the time they had worked their way through the list, it was as clear as a spring day.

After eliminating "dealers" who were no longer in business, dealers who may have at one time queried Atari on what it took to become a dealer, stationary stores that sold Atari brand calculators, a variety of stores that had nothing to do with computers, private residences who were not amused by the phone call and at least two empty lots, they had the numbers at last.

There were, by AtariUser's count, between 100 and 200 bonafide dealers. Think about that for a minute. That is between two and four dealers *per state.* A whole raft of states didn't have any dealers at all. When you realize that some cities have as many as three dealers, you can see that the "network" of Atari dealers is stretched pretty thin.

It doesn't take a rocket scientist to figure out that a computer you can't buy will never catch on. And remember, technically, you can't buy these computers by mail order—you have to go to a dealer. Kind of makes me sad.

The More Things Change...

The whole business of the number of dealers takes me back a few years. I don't remember the exact year, but it was about the time Atari decided to take its stock public. One of the things you have to do to meet the SEC's requirements for selling your company's stock is disclose a lot of information. This is so people deciding whether or not to buy the stock are well informed.

One of the things Atari had to disclose was the number of dealers they had selling their computers. As I recall, the number they published was about 1,000 (does this sound familiar?).

At that time, I was doing a column for STart magazine, probably the most widely read magazine for the ST until its demise in February of last year. The column detailed emulators—the Spectre GCR and several PC emulators, including Avant-Garde's pc-ditto were the primary focus of the column.

I did a lengthy interview with Bill Teal, president of Avant-Garde, and the results of that interview were published in my column. In the interview, Bill told me of an effort by several developers to try and figure out how many Atari dealers there were. Starting from a list of dealers provided by Atari, Bill and several others began phoning.

The results, as you have probably guessed by now, were significantly different from what Atari claimed. They found, at that time, about 250 dealers. This is what I published in my article.

Then the fun began. Apparently, someone at the SEC read STart (who would have guessed it—Atari owners turn up in the weirdest places). They compared the number in my column with the number in Atari's officially

filed documents and had some very hard questions to ask of Atari.

I don't know how it all worked out, except, of course, that Atari was eventually able to satisfy the SEC, because Atari stock did go on sale. Needless to say, neither Bill Teal nor myself were particularly popular with Atari at that point!

That column happened to appear in the issue of STart that was sold at the World of Atari in April of that year. I was there—so I heard the whole story from Bill Teal firsthand.

It was also there that I happened to be sitting at breakfast in the Disneyland Hotel restaurant when Sig Hartmann (president of Atari Software then, and since retired) joined me at my table. He was very diplomatic and admitted that Atari did indeed need to straighten out the number of dealers they had. Sig didn't blame me for letting the cat out of the bag (which I didn't do with any malice toward Atari). But then, Sig always was a gentleman.

Dealer Drought

There is something of a "Catch-22" in becoming a new Atari dealer which may account for the lack of enthusiasm. For one thing, setting up a dealership takes considerable resources (time and money), as well as determination. If you intend to service the machines, you also need to find a qualified technician—they are scarce, I can tell you.

In order to stay in business, you need to sell machines and software—*a lot* of machines and software. Of course, this presupposes that a lot of machines and software are available to sell.

Software there is—powerful stuff, too. Much of the new stuff depends to a great extent on European manufacturers. Many of the overseas companies are not particularly interested in distributing in the US, even assuming they bother to translate their manuals into English. Fortunately, of course, we can use the British manuals (do you know what a "full stop" is?).

Machines are more problematic. Nothing I have seen Atari do has accounted for much increase in production, which was inadequate in the first place. The new machines are certainly impressive, especially the TT and the little STBook portable. But, Atari needs production quantities an order of magnitude greater than they are providing to really crack the market. In order to create that many machines, they are going to need new production facilities.

And even if Atari could produce the necessary quantities, they would need to get the word out. And they need four to five times the dealer base they have now. I don't see people flocking to sign up. I don't say its hopeless, but Atari just doesn't seem to be making much of a concerted effort. Changing officers and reorganizing every few months just doesn't cut it. They have to *do* something. As it is, I think the number of dealers will continue to shrink—and Atari computers will get ever-harder to find. I don't like it, but I don't see the situation changing anytime soon.

See you next month.

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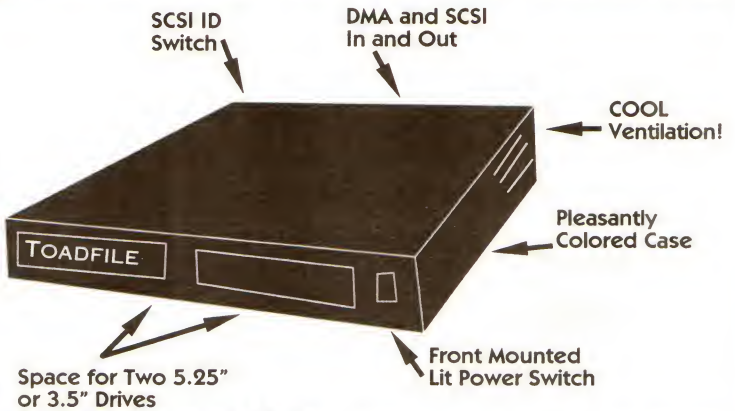

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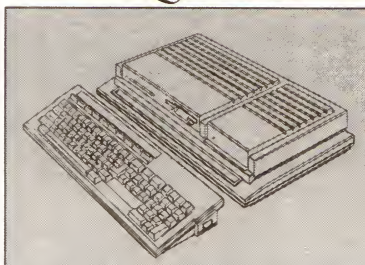

Mega STE Monitor Deals!

☛ We're hereby announcing a deal that will make your teeth sweat. Now, with the purchase of any Mega STE, in any memory or hard disk configuration, you can get a color or monochrome monitor at a substantial discount. And not only that, prices on the Megas have dropped anyway, so you can get a complete Mega STE system, with hard drive and monitor for the price you probably paid for your 1040ST system! Consider it. To upgrade your existing ST, you might have to spend as much as $1500 to get comparable RAM upgrades, accelerators, new TOS versions, hard drives, and detachable keyboards. For well under that price, you can get a brand new Mega STE, which includes all of those upgrades, not to mention the VME card slot (for expanded video) and Appletalk compatible network port. And it includes a monitor! Why don't you give your old ST to a friend or family member, or keep it as a spare. Remember, an upgraded ST is never as reliable as a new machine. Isn't it about time you stopped cramming things under the hood and thought about buying a new car? Now you can – *without feeling guilty!*

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☛ *We Toads are quite certain that our Mega & Monitor promotion is simply the best Atari Computer value you'll find in all of 1992. That's why we've given it the "Toad's Best of '92" seal of approval!*

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#8 Atari CX40 Standard Joystick	$7
#9 Atari CX80 Trackball (For ST)	$39
#10 Golden Img Mouse & Deluxe Paint	$79

Items Are Listed In No Particular Order.

Spring & Summer

☛ Winter is slowly but surely giving way to the warmth and raw flavor of spring, and our Spring/Summer catalog will be out very shortly. The Spring/Summer catalog will be our biggest and best printing effort yet! We're moving, too! A tremendously large location is being prepared for us now, and we should be in by Summer! We're not moving far, though — just across the street! Call for more information. Thanks for your continual support. We appreciate it.

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Haven't You Always Been Playing with Power?

(An Alternative ST Advertising Strategy)

Tim Holt
ACCEPT

Billy Bob and I were getting ready for the January meeting of ACCEPT, and we had a few minutes to kill before we went to the meeting. Did we discuss computers? Did he tell me all about the latest news in the Mac world? No, we did what any true Atari computer enthusiast would do with some time to kill on a Saturday afternoon—we watched American Gladiators. Now, I don't know if you are familiar with American Gladiators, but it is basically a step above Championship Wrestling and a notch below MTV on the old intellectual meter scale.

We sat there, waiting for ICE—a woman who obviously started taking steroids as a child—to do battle with some poor moron the producers had taken off the street.

Right as I was finishing the last of my Peanut Butter Fudge Sundae ice cream, Larry Czonka, former has-been in the NFL, let us know what was coming up: "In a few minutes, Ice, who broke her ankle in the Balls of Death competition just five minutes ago, has made an amazing recovery and will take on Mildred Johnson, a mother of five and part-time rodeo bull rider, in the Nintendo Wall of Doom."

"By the way," Larry went on to tell us, "the Wall of Doom is sponsored by *Nintendo. Nintendo,* now your playing with *power!!*" And so it went. Ice was able to catch up with Mildred, even though Mildred has a good 30 second lead, and Ice threw her off the Nintendo Wall of Doom.

Throughout the show, there was a barrage of Nintendo this; Nintendo that; the Nintendo halftime score; the Nintendo interview with Moose, the American Gladiator from the Yukon who had no body hair; and so on.

Billy Bob and I looked at each other. Every commercial for Nintendo was pretty much the same. Now, you have 16-bit power! Now you have *stereo* sound! Now you have 3D graphics. *Wow!* (Being a school teacher, I can tell you that most kids—and that is who this was aimed at—have absolutely no idea what 16-bit anything is. Half might figure out 3D graphics and I'll guess 60% get the stereo sound part right.)

Billy Bob looked at me. "Isn't that what we have had for the last 6 years?"

"Yep. Sure have. But these kids, looking at these commercials think that 16-bit power, stereo sound and 3D graphics were invented by a little old Japanese guy named Mr. Nintendo."

Commercials for the *Sega* this and the *NEC* that were on the second portion of American Gladiators. (Apparently, the producers haven't heard of the concept of product loyalty, and pretty much take any commercial. Who cares if they are for competing companies?)

We saw the Sega "At Home with the Gladiators" and the NEC "Win a Date with the Gladiator of Your Choice" essay contest (Dear Moose, I would love to date you because I never met a man whose pecs were four times my bust size. Love, Jenny.)

Then, they trotted out the *newest* Nintendo offerings. Hmm. SIM City, F-16 Flight Simulator, Golf, Championship Chess. We've been playing those games

for years! And, from the looks of the graphics, I would say the ST versions beat those *Super* Nintendo versions by a mile.

Which leads me to my thesis: Why doesn't someone advertise the ST to these kids who are buying up these Nintendo systems like they are manna from heaven?

I know. We've been trying to get out of the game machine image for years now. And I think that, by and large, those that are still buying STs are not buying them because they are game machines.

But, our numbers are shrinking. It's about time, and I never thought I would say this, that we swallow our pride and just say "Look, this *is* a great game machine! It kicks Nintendo's butt!"

Any game on Nintendo looks 1000 times better on an Atari STe. C'mon kid, get your tush over here and play Falcon for a few minutes. Ever see that on Nintendo? Noooooo! Mig 29? Kick your little fanny, bub. And it's got, get this kid, 16-bits! Stereo sound! 3D graphics! And you can even use the darn thing to do your homework on if you wanted to. Can't do that on a Nintendo. See that Nintendo hooked up to an electronic piano over there? Come look at this Atari ST. It's hooked up to an entire orchestra! Let's see your Super Nintendo do that.

Why do I recommend selling our beloved Ataris as game systems? Well, actually, there are several reasons:

The user base is shrinking. We simply cannot rely on DTPers and musicians to keep our computer alive. *It doesn't matter who is buying the machine, as long as someone is buying it!* We could have alien technology super computers the size of a wristwatch, but if no one buys them, what good is it? Thirteen-year-old kids buying $600 system are just as good to the bottom line as 55-year-old business types.

David Plotkin, in the January AIM, stated "Atari needs to get more machines sold and build their user base or 1992 may be the end of it." I know you hear that every year, but someday, those gloom and doom guys just might be right. Selling to the "Game Crowd" is just as good as selling to the Music or DTP crowd.

"Well, someone buying a machine for Desktop Publishing will spend more money," you might say. Wrong-o. A person that buys a computer to do a specific task, say Desktop Publishing, may have an initially larger investment than a family that might buy the computer for entertainment.

However, once the DTP guys buy the system and the program or two that goes with it, they are through. No more investment. Billy and his friends, however, will continue to purchase the latest software as soon as it comes out. How many families do you know of that have a Nintendo with a zillion cartridges? I know a family that was robbed, and the bandits took off with over $2500 in Nintendo games!

Large game sales make other companies look at the market. Don't you think the computer software wizards have tried to figure out ways to get into Nintendo's market? Why? Because of the kids? No, because they have seen the number of systems out there!

If some company sold 500,000 copies of a game for the Atari, don't you think companies like WordPerfect and Spectrum Holobyte and Broderbund might take notice? *Who cares* if it was a game that sold? Five hundred thousand copies means that there are at least 500,000 machines that can run that game! Get it? Five hundred thousand potential WordPerfect, Carmen San Diego or MS Works users! Money talks. Numbers talk.

Games, er, entertainment software is no longer looked at as the stepchild of computers. All those folks with their Messy-DOS systems can't wait to get super VGA graphics. Why? Not because WordPerfect looks better in VGA. It's because all those new games require VGA or Super VGA graphics. IBMers are buying *games.* Millions of games! IBM clones have become *the* game machines! Why? Because they now have graphics that are *catching up with* the Atari world.

Games now have credibility, simply because of the numbers in the MS-DOS world. Atari is no longer the game machine. All those clones out there are the true game machines, and as such, have given the term "Electronic Game" new respectability.

So what if people call Atari a "Game Machine"? If we can use that image to sell Atari's, then USE it!

Game Machine!
Game Machine!
Game Machine!

Imagine this commercial, during a break in American Gladiators:

A little kid playing a game on his Super Nintendo. He shows his friend his "latest game". His friend tells him "I finished that game last year."

"Well, what about this game, it just came out last week?"

"I finished that game three months ago."

"Three months ago? It just came out for the Nintendo."

"That game came out two years ago for my Atari ST."

"I didn't know that."

"And the Atari had 16-bits, stereo sound and 3D graphics even before Nintendo was a company in America. Besides, my dad uses our Atari for business, and Mom does all the house stuff on it...when I let them use it."

"Gee, you can't do that on a Nintendo."

Fade out to black. Then the screen shows the Atari STe and MegaSTe computers. Fade again. The Atari logo comes on, and the voice over says "Atari: We've always been playing with the power."

Game machine? Yeah.

Rasters and Vectors

A Review of

Arabesque MegaPaint Silhouette

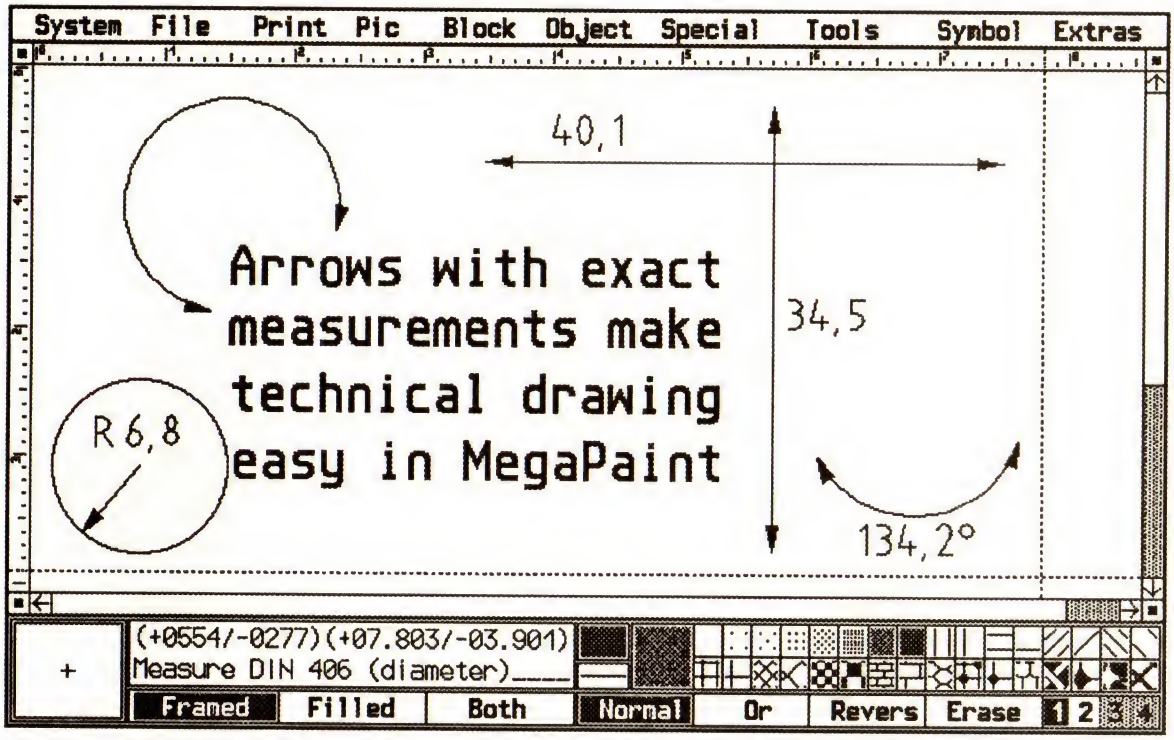
Bill Rayl

Drawing programs that handle both vector and raster graphics are one of the newest, and most important, types of graphics software to be released for the Atari ST.

These graphic creation packages are invaluable to desktop publishers and graphic artists. Along with auto-tracing programs—which automatically convert raster graphics to vector formats—raster/vector drawing programs are an essential part of any complete DTP platform.

This article looks at the three best packages in this category. Arabesque Professional is produced by Shift GmbH and marketed in North America by Gribnif Software. MegaPaint II Professional from Tommy Software (also in Germany) is marketed by CodeHead Technologies. The only "made in America" entry is Silhouette from Maxwell CPU of Louisville, Colorado.

All these packages are *monochrome only* drawing packages, although you can colorize vector images from within your favorite DTP package.



Each of these packages have a lot in common, and for general illustration purposes you would most likely be happy with any one of them. However, each package does have specific functions and features that the others do not. Depending on your needs, these extras may tip the balance.

Rasters versus Vectors

Before getting into the specific virtues of each program, it's important that you understand the difference between a raster and a vector graphic.

Raster graphics are made up of many tiny *pixels*. Drawing a raster graphic is, in actuality, drawn pixel by pixel—if you use a circle tool in a raster drawing program, the computer places the pixels appropriately, but it does so one pixel at a time. Modifying these graphics is, as you might expect, also done pixel by pixel. Raster graphics are also often referred to as bitmap graphics.

Most paint programs you are familiar with—such as DEGAS, Suerat or Prism Paint—are *raster* graphics drawing programs. Scanning/drawing programs such as Touch Up and MultiViewer Graphica are also raster packages.

For professional DTP work, raster images have a number of limitations. The most noticeable of these is that raster graphics tend to become "jaggy" when enlarged beyond a certain point. Also, fill patterns contained in raster images change as the graphic is resized, often causing unwanted "moire" patterns. Finally, scanned images of 300 DPI or higher, which are necessary for quality output, can take up enormous amounts of disk space and memory when loaded into DTP packages.

Vector graphics are geometric shapes made up of mathematical points and calculations. With various drawing tools, you can create anything from a simple line to very complicated polygons.

Editing these graphic objects is done by modifying specific points. For instance, look at a simple line. As a vector graphic, a line is made up of a starting point and an ending point (plus information on the width and length of the line, fill pattern used, etc.). To modify the direction or length of the line, you would, for instance, select the ending point and drag it to the new location. Once you set the point, the line would redraw. If you're familiar with the way lines are drawn in DTP packages like Calamus or PageStream, those are vector graphics.

The very first vector graphics drawing package for the ST was Migraph's Easy Draw, which saved in the popular .GEM format. Since then, other packages have appeared, most notably Calamus Outline Art from ISD, which supports the .CVG (Calamus Vector Graphics) format.

The benefits of vector graphics for DTP work have nearly a one-to-one correlation to the drawbacks of rasters. Vector graphics do not lose any of their quality when resized, their fill patterns remain unchanged and they usually take up considerably less memory than an equivalent raster image.

Vectors also have the additional benefit of being far easier to edit and manipulate. Since a graphic can be produced from many independent pieces and these pieces can be layered, drawings can become quite complex and detailed.

Now That That's Over...

Arabesque, MegaPaint and Silhouette all have the "standard" features you would expect to find in a drawing package. These include tools such as flood fill and spray can, as well as cut and paste functions. Anyone who has used any paint program is already familiar with basic drawing tools.

This article won't dwell on those. Instead, we'll discuss some of the similarities of the packages (and dif-

ferences) in such areas as file format support, printing and text capabilities. Then, we'll take a look at the unique features of each program.

While the user interfaces for each package are somewhat different, it is quite easy to switch from one to the other without any trouble. This is, in part, because these three programs all attempt to make the drawing process as intuitive as possible.

Arabesque's interface is via a toolbox containing icons, with keyboard equivalents for every available option. Silhouette also has a toolbox for selecting drawing tools, but drop down menus are used for option and mode settings. MegaPaint has extensive use of both drop down menus and an icon toolbox, and you can even customize the toolbox to your own needs.

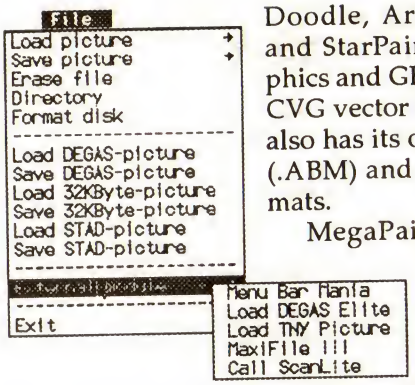
Of course, Silhouette and MegaPaint also have keyboard equivalents for many features. But neither comes close to Arabesque, which lists seven pages of hotkeys in the manual!

The raster and vector graphics drawing modes are separate from one another in all the programs. You switch from one mode to another via a drop down menu option, keypress or whatever. In Silhouette, the exact same tools are available in both modes. Arabesque and MegaPaint have some different options depending on the drawing mode.

File Formats

One important consideration that has nothing whatsoever to do with the drawing capabilities of these packages is what kinds of graphics can they import and export (load and save).

Arabesque supports the most file formats, allowing you to load and save IMG, Degas, IFF, Neochrome,



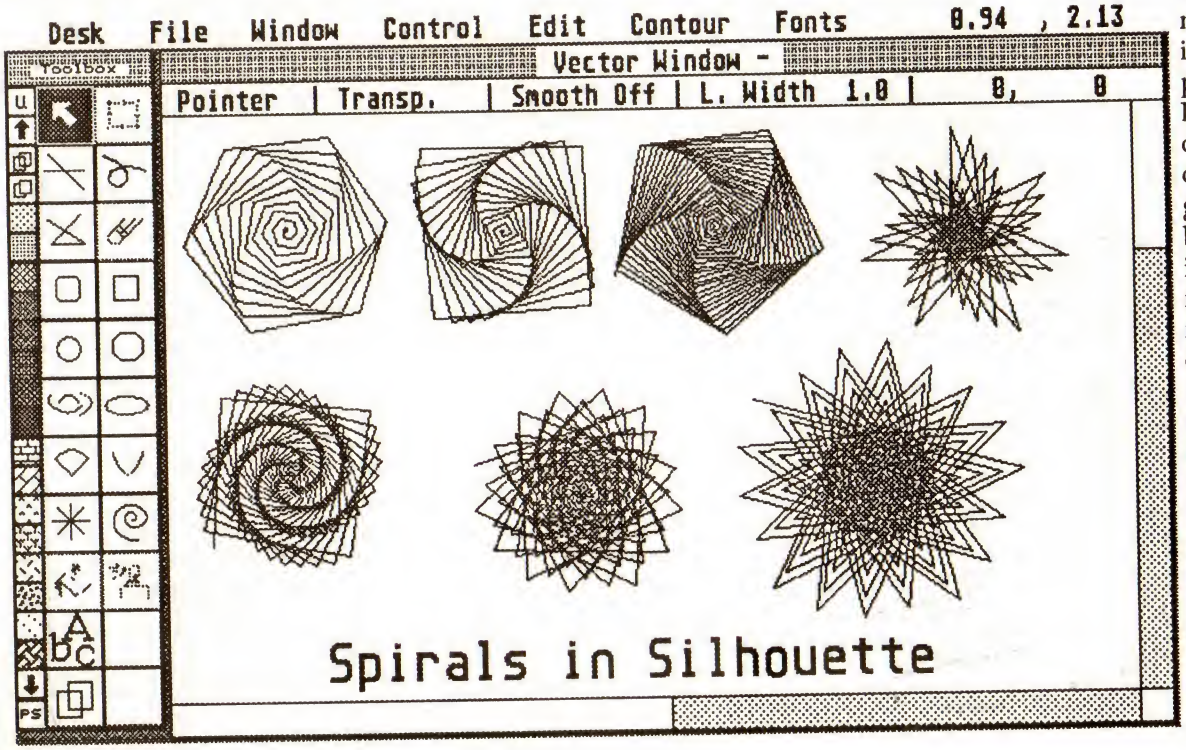
Doodle, Art Director, STAD and StarPainter ST raster graphics and GEM/3 and Calamus CVG vector images. Arabesque also has its own special bitmap (.ABM) and vector (.AOB) formats.

MegaPaint allows loading and saving of IMG, Degas, STAD and raw 32K screen image formats, as well as the popular PCX format from the IBM world. With external modules (available free from CodeHead), you can also load Degas Elite, TNY and CVG formats. MegaPaint also has load and save options for its own raster .BL? format (.BLD or .BL1, .BL2, etc. for "subdivided" images).

On the vector side, MegaPaint is the least flexible of the three packages we're looking at, loading only its own proprietary .VEK format and saving only VEK or CVG formats. The CodeHeads do promise future support of other formats via external modules.

Silhouette's raster support includes the loading of IMG, Degas, Degas Elite, Tiny and MacPaint graphics. A grayed out TIFF button indicates this scanned image standard will soon be supported as well. When saving a raster, the only supported format is IMG.

The only choices for loading vector graphics in Silhouette are GEM format and Silhouette's own .SGF format. However, when it comes to supported vector formats for saving, Silhouette beats both Arabesque and MegaPaint. Support includes GEM and GEM/3, EPS (Encapsulated PostScript, Illustrator compatible), and DXF format for loading into CAD programs like DynaCADD or AutoCAD on the IBM. A grayed out button here indicates Calamus CVG format is also coming.

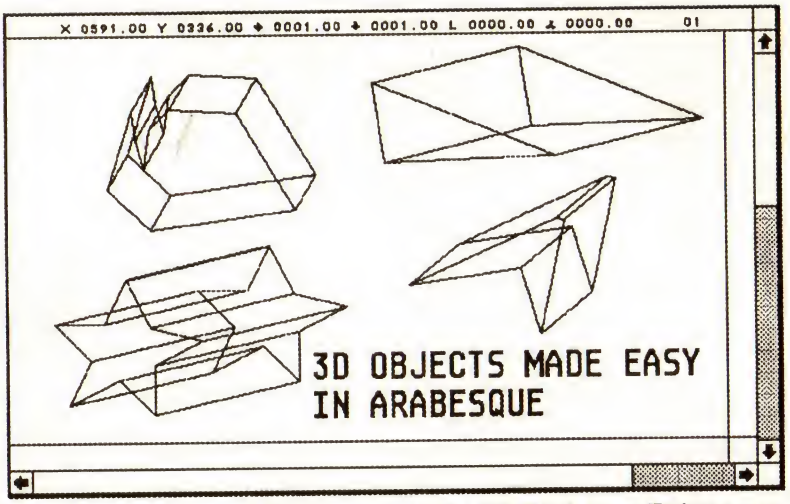


For users of PageStream (or other PostScript systems), Silhouette's EPS support is an important consideration. Now, the graphics saved

are imported into PageStream only as ASCII EPS (the picture doesn't show and can't be manipulated inside PageStream). Tim Reyes, Silhouette's author, says full "Illustrator 2.0 compatibility" for the EPS files is a high priority.

While Calamus (pre SL) owners can use GEM format graphics, the CVG format is far superior. Hence, Silhouette's current lack of that format is a detriment, while both MegaPaint and Arabesque score a plus in this category. The new Calamus SL supports the newer GEM/3 format, making Arabesque and Silhouette attractive options.

Finally, MegaPaint's support of the PCX format is very important to anyone dealing with graphics coming from the IBM world. Nearly all scanning packages on the IBM have PCX support, as do many IBM-based drawing packages.



Text Support

All three packages have text support that is above and beyond what you might expect in a drawing package. MegaPaint comes with the Helvetica font in 18, 24, 30 and 36 point sizes and has a built-in standard text font besides. A separate utility bundled with MegaPaint allows conversion of Signum fonts from the popular German-based product. Fonts can be used in both raster and vector modes. Up to eight external fonts can be loaded.

Arabesque also comes with a utility for converting Signum fonts to its font format. Fonts that ship with the package are Courier (9, 24 and 30 pt.), Micro (30 pt.) and Roman (9, 24 and 30 pt.). Not counting the built-in System font, you can have up to five external fonts loaded. If you have and use GDOS (not supplied with Arabesque), you can use those fonts at various point sizes. GDOS fonts are not, however, usable in vector mode.

Silhouette's text support is entirely via GDOS, which is supplied with the package. Both Font GDOS and the newer FSM-GDOS are supported (only Font GDOS is supplied). The package comes with Swiss, Dutch and Typewriter fonts, and multiple point sizes from six to 72 point are available with Font GDOS. These GDOS fonts can be used in both raster and vector modes.

Printer Support

While usually not a very important consideration for DTP users, graphic artists often like to have the ability to get hardcopy results directly from their drawing packages.

While Silhouette does not have a built-in printing option, a companion program called OUTPUT uses the GDOS output driver indicated in your ASSIGN.SYS file. Using the OUTPUT program, you can get printouts of your graphics, but you must exit from Silhouette to run OUTPUT. Silhouette only comes with an Epson FX-80 compatible GDOS driver. Drivers are available from other sources for Atari and HP lasers, and FSM-GDOS comes with a host of printer drivers.

The printing options of Arabesque and MegaPaint are much more extensive. Arabesque comes with printer drivers for the Atari laser, HP laser, Cannon Bubblejet and various 9-pin and 24-pin dot matrix printers. A section of the manual details how to build your own printer driver.

Arabesque's built-in print option allows printing of multiple copies. You can print the whole page, just what appears in the screen area or only a selected area. Portrait or Landscape (sideways) printing and opt to print the graphic at full or half size.

MegaPaint ships with drivers for Atari laser; HP LaserJet II, III and IIID; HP DeskJet and DeskJet Plus; and various 9-pin and 24-pin printers (including a specific driver for Panasonic KX-P series printers). MegaPaint even has color support for printers such as the Star LC10 and NEC P6+. Up to four colors can be printed at one time, one for each "plane" that makes up a picture in MegaPaint. These planes can be thought of as separate layers, similar to an architectural blueprint. MegaPaint also offers the ability to create and save your own custom printer drivers.

Actual printing options in MegaPaint are quite similar to those in Arabesque. You can print the full page or just a section, Portrait and Landscape modes are supported and multiple copies can be printed. MegaPaint does have the added option of printing multiple copies of up to 16 different graphics. (Note: You can't print multiple pictures and use MegaPaint's color printing option at the same time.)

Manuals

The manuals that ship with each package are, by and large, excellent. At 88 pages, the Silhouette manual is the smallest of the three. It does, however, cover all the program's features quite nicely. The only complaint with the Silhouette manual is the lack of an index.

The MegaPaint manual is, at once, the best and the worst of the manuals. It contains far more detailed

description of the program's functions and contains a wealth of extra information. It does suffer from one flaw, though. The translation from German to English left this manual with some rather awkward sentences.

At times, it seems the translator had to make a choice between words with very different meanings... and s/he sometimes made the wrong choice. The translation was obviously done by someone who used English as a second language. (Of course, his/her English is far better than my German!)

Here's an example. On page 101 when introducing the topic of scanners, the manual states "MegaPaint disposes of a variable scanner interface." The actual German word for *to dispose* that was probably in the original is *einrichten*, which also translates to *constitutes* or *establishes*. To say that Megapaint "establishes a variable scanner interface" is probably closer to what was meant. What it boils down to is that "MegaPaint can interface with a number of scanners."

Thankfully, these mental exercises are not too strenuous; I have yet to find any phrases that are so convoluted as to totally lose the reader. There are a few times when you'll have to do a double take, though.

The English version of the Arabesque manual was written by Gribnif's Rick Flashman here in the US. Hence, it does not suffer from a translation problem. In fact, I can find no fault with the Arabesque manual whatsoever. It has a good index and the chapters are organized in a logical fashion.

Arabesque

Well, we've probably dealt enough with the similarities between these packages. Now, it's time to get to the real interesting part—the features and capabilities that each program boasts. We'll start with Arabesque.

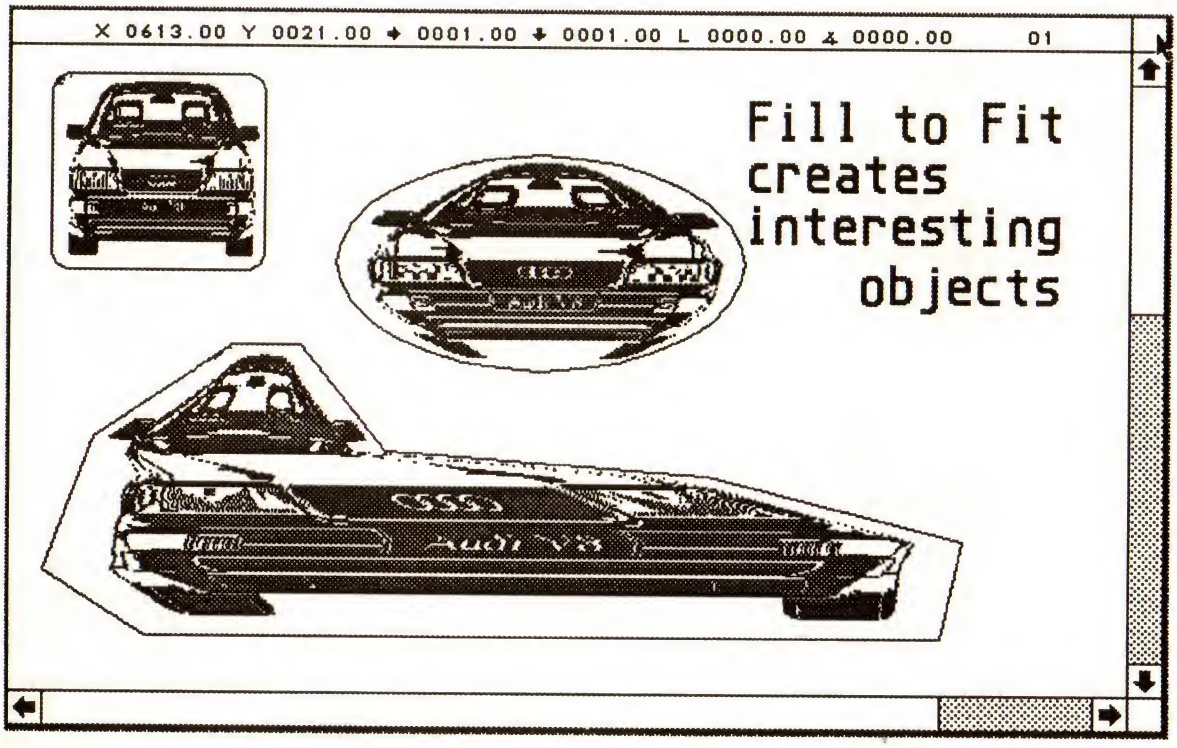
The most impressive feature Arabesque has that the others don't is a Buffer Fill to Fit option. Once you have copied some graphic to the buffer, Arabesque gives you many manipulation options for that graphic. The most striking is the ability to use the buffer as a fill. The Fill to Fit option actually stretches or skews or otherwise contorts the buffer's content to fill whatever object you choose. The results of such a tool can be seen in the example where an Audi has been used to fill various polygons.

Another nice fill option is that Arabesque supports gradient fills—automatic gradation from black to white. While not very sophisticated—you cannot specify gray scale percentages, increments or starting and ending values—it is nonetheless a welcome addition that is sadly lacking in most ST drawing packages.

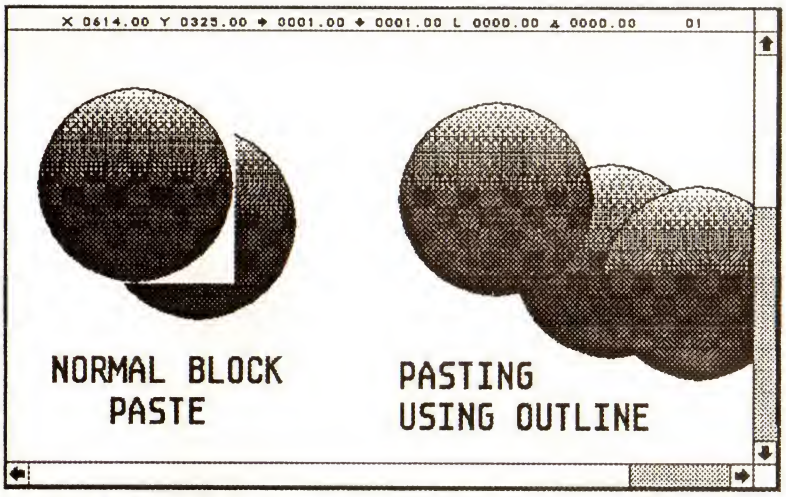
Nearly as impressive as Fill to Fit is Arabesque's ability to generate 2D or 3D polygons. Drawing 3D polygons is as simple as drawing the polygon, with the extra step of adding depth to the object by moving the mouse. The results are excellent. A special "conic" option draws the endpoints of all lines into a single point, making it easy to create "zoom boxes" or other fading effects.

Arabesque's extensive block operations include such items as Contour, Smooth, Bend and Pull. Contour drops out the filled part of a block, leaving only the outline. Smooth is a wonderful option that lessens the jaggies that occur when enlarging bitmap images.

Bend allows you to bend or distort a block, with the option of Linear, Arbitrary, Ellipse or Sinusoid bending path. The Pull option lets you select the corners of the block and stretch them independently from one another.



Pasting of irregularly shaped bitmap blocks on top of one another in most paint programs includes pasting part of the background as well. Arabesque has a special masking procedure that allows you to paste objects according to the outline. If you've ever pasted objects on top of other objects and then



had to do lots of cleanup of individual pixels, you'll find this capability extremely important. (See the example graphic screen comparing a normal block paste to Arabesque's irregular paste option.)

The final unique feature we'll touch on here is that Arabesque can actually combine raster and vector graphics into one picture. Unfortunately, you can only save these combined graphics in Arabesque's own internal file format. That format is not supported by any other programs at this time.

MegaPaint

MegaPaint has a number of very interesting capabilities not found in the other packages. The first of which is direct scanner support. The package comes with built-in support for the Hawk CP14 and Print-Technik Universal or Professional scanners. With the ScanLite module (free from CodeHeads) and ScanLite from Wiz Works, nearly every hand scanner on the market can be used to directly scan into MegaPaint.

A number of MegaPaint's features make the package very suitable to technical illustration. A "measure" feature allows you to insert a line or arrow along with a textual measurement of distance, radius, angle, diameter or arc length. The use of up to four "planes" lets you create multi-level drawings, similar to floor plans and blueprints. There is even an option to show the planes at varying intensities, which is perfect for technical drafting or animation work.

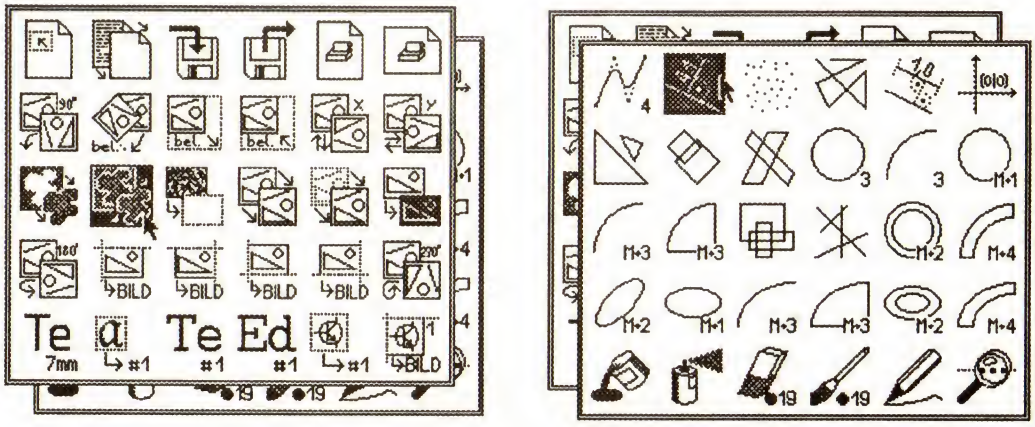
MegaPaint also supports "symbols libraries" and comes with two raster libraries of electronic symbols and two vector libraries of text objects.

MegaPaint has, by far, the most built-in object drawing tools of any ST paint program on the market. The Objects drop down menu has over 20 entries, including Point, Line, Triangle, Rectangle, Rhomboid, Parallelogram, Polyeder, Circle and Ellipse Rings, just to name a few. While you can create many of these objects in the other packages, MegaPaint makes it a snap.

The external modules support in MegaPaint has already been mentioned a couple times. While Arabesque supports the "GEM pipeline" for possible future enhancements via desk accessories, MegaPaint has a number of add-ons already available. Many of these available external modules from the CodeHeads have been released on the online services. And the CodeHeads promise there are more to come.

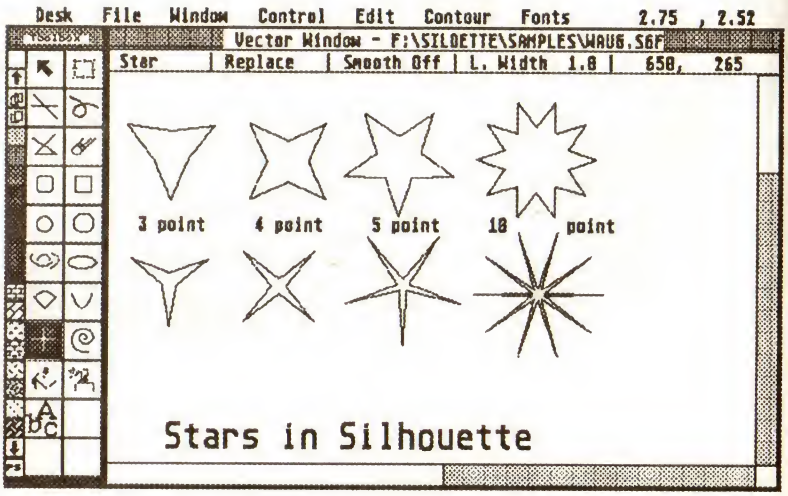
While all these programs have fill pattern support, MegaPaint is shipped with some custom fill patterns. The *pinprint* patterns are specially designed for dot matrix output up to 240 DPI, while *laser* is optimized for 300 DPI and higher output. There are also special fills containing 32 gray scales, 32 coarse gray rasters and 32 hatching patterns.

Probably the very last thing you would expect to find in a paint program is built-in database and mail merge capability. Well, MegaPaint has it! You can actually create graphic-oriented form letters and use a mailing list to do a mail merge from within MegaPaint. The software directly supports Adimens, dBase and Lotus 1-2-3 compatible lists, as well as gives you the option to define your own import format. I tested this feature using an address list exported from SuperBase and it performed flawlessly. Simply amazing. What will they think of next?



MegaPaint's Customizable Toolbox

Silhouette



As of version 1.36, Silhouette has matured into one of the premier graphics packages available on the ST. With version 1.5 scheduled for release in early May, the package promises to be even more stable and more powerful.

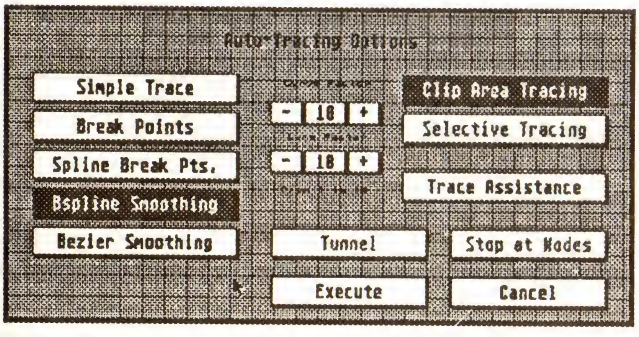
Probably the biggest feature unique to Silhouette is its built-in auto-tracing capability. Auto-tracing is pretty much what the name implies—the automatic tracing of a raster graphic, creating a new vector graphic in the process.

While the more sophisticated stand-alone packages like CodeHead's Avant Vector or Gribnif's Convector are far more powerful, Silhouette's auto-tracing features may be all the average user ever needs. Silhouette performs extremely well with tracing straight black and white images with little or no gray scales. Complex graphics with lots of fill patterns are far less successful and usually require some clean up work to get the desired results.

I have personally had quite a bit of success using Silhouette to auto-trace Degas and MacPaint black and white clip art. Options range from a simple trace up to tracing using Bezier curves, and numerous other smoothing and tracing settings complement the process. You often get very good results when mixing different tracing options for different parts of an image.

Another very nice feature, primarily because of its powerful implementation, is the Duplicate option. Selecting Duplicate brings up a dialog box crammed full of options. You can, for instance, duplicate an object 100 times. With each duplication, you can rotate the object by degrees, increase/decrease the object's height and width and apply an incremental gray scale all at the same time.

You can select Free Style, Radial Offset or Cartesian Offset duplication. With the Cartesian setting, you supply the actual X and Y offsets. Radial Offset presents you with an arrow. By increasing or decreasing the length of the arrow (as well as the angle from origin), you determine how loosely or tightly the duplicate are packed. Free Style creates as many duplicates as there are points in a "polyline" that you create. Basically, with Free Style, you determine the exact path for the duplication. Experimenting with the options available here is highly recommended. You can create some spectacular corkscrew or spiraling effects with this feature.



Two of the other impressive tools found in Silhouette are the Star and Spiral drawing tools. Using the Star tool, you can create star-shaped objects (or other polygons) with anywhere from three to 99 points. Pressing the left and right arrow (cursor) keys modifies the star's inner radius.

The Spiral tool is one of the cleverest drawing tools I've ever seen. It's like having a Spirograph on your computer! The more spirals you add, the more complicated the object becomes. You control the "pitch" (tightness) and "roll" of the spiral. When the spiral is ready to be set, you have the option of setting the spiral exactly as shown on screen or allowing Silhouette to complete the drawing process as would occur on a Spirograph.

Observations

As you can see, each of these programs has a lot to recommend them. In using all three packages, there are some general observations I can make that may help you choose the one that's right for you. First, if you're looking for basic drawing capability, you will be happy with any of these packages.

As a generalization, I would say the following: Arabesque is the strongest raster drawing package of the three. Silhouette is the best on the vector drawing side, offering some powerful tools and more file formats. MegaPaint is the most balanced of the three, handling raster and vector drawing equally well.

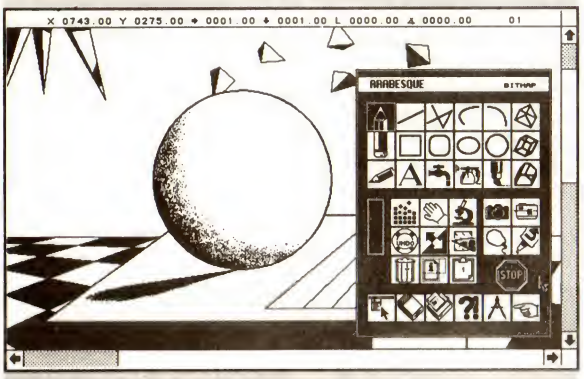
For technical illustration and/or direct scanning support, MegaPaint is the clear choice. If converting of raster images to vector formats is important to you, Silhouette's auto-tracing options are far better than doing it by hand in the other packages. For creation of 3D images with depth and texture, Arabesque has the tools to do the job most efficiently.

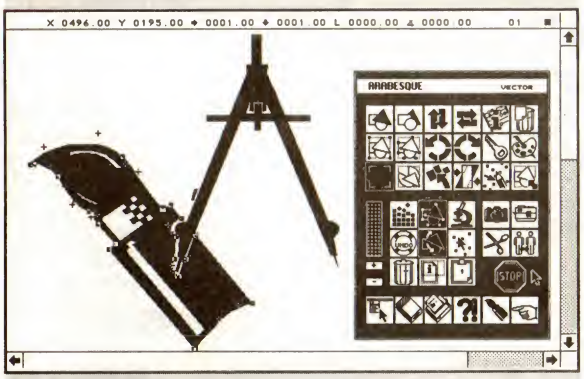
Unless you've made up your mind which package best suits your needs by now, making a decision is going to be tough. Personally, I'm glad I have all three packages and don't have to make such a hard choice. If you can afford that option, I heartily recommend it as each package offers some very useful options the others don't.

Arabesque™ PROFESSIONAL

Illustration made easy!

***Arabesque Professional* is a complete Bitmap and Vector based illustration program. It allows you to create, import, edit, and save graphics in the two standard computer formats, Bitmap and Vector.**





Features include:

- Easy to use, icon-driven, pop-up menus.
- Edit up to 20 drawing pages in memory.
- Draw points, lines, Bézier polygons, B-splines, circles, ellipses, arcs, 2D/3D, and rectangles (with or without rounded corners) in Bitmap or Vector mode.
- Choose from various line end styles, thicknesses, drawing modes, etc.
- 108 different fill patterns, edit your own or use an image block.
- Block operations (rectangle or arbitrary shape) including: cut, paste, mirror, rotate, bend, increase contrast, contour, smooth, enlarge, save and load.
- Outputs to 9- and 24-pin dot matrix, "Bubblejet", as well as Atari and HP laser printers.
- All functions operate rapidly in magnification mode.
- A complete UNDO feature.
- Load and save various graphic types including IMG, IFF, Degas, NeoChrome, Doodle, Calamus CVG, GEM/3 and Arabeque's own compressed formats.
- Configurable "spray can" feature.
- Complete selection of drawing modes, including: replace, XOR, AND, transparent, reverse, and more.
- Easily convert Vector graphics to Bitmap graphics, with optional use of gray scales.
- Fully illustrated manual.

Arabesque is also a program with an incredible amount of attention to detail. Its speed will amaze you, while its ease of use will astound you!

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DALE WOOSTER
NWPAC

Share-Pay is part of my personal campaign to keep the Atari 8-bit computer alive, but it will also work for *any* computer groups.

Share-Pay is designed to help computer user groups everywhere in the world *support our shareware authors* and let them know we want them to continue writing new programs and improving the existing ones.

I will list just a few authors here to remind all you readers out there just how important these people and their programs are to our 8-bit world of computers—Ronnie Richie, Bob Puff, Roy Goldman, J.D. Potter, Don Davis, John McGowan. I could go on and on with hundreds of others. Just the few mentioned here have given us dozens of programs, including TextPro, MyDOS, BobTerm, Discomm, SuperARC/UNARC, Daisy Dot, and APACView.

Well, you get the idea. Without these folks, and others just like them, you really would have "just a game machine." I only hope each person that reads this can truly say that they have supported these authors by sending a donation after using (and continuing to use) their programs.

But, as president of NWPAC (North West Phoenix Atari Connection), I conducted my own small survey just to see how many members had sent in donations to various authors. I am ashamed to say I will not reveal the results.

That is one of the reasons I am proposing that *all clubs* take action to correct this problem *now* before we lose more of our fine software writers.

My proposal, put before the NWPAC membership, includes the following:

1. Raise the price on *all shareware disks* to members by $1 or $2 and keep records of each sale. Set aside the $1 (or $2 depending on what is voted in). Every 90 days, tally up the totals and mail a check to each author involved.

2. Suggest to every person who buys a disk or anyone that's using the program now that they send whatever they can afford right away—$5.00, $10.00 or even $20.00.

3. Include a *nice* Thank You note and advise the author what you liked or did not like about their program and that you would like to see more from them in the future.

4. I also propose that the club will totally support AIM and also include the club's AIM disk sales in this Share-Pay.

I am submitting this article to Atari Interface in the hopes that they will print it. I also hope they would be willing to become the "hub" for Share-Pay by printing author's addresses, etc. on a monthly basis, just like they do for the clubs.

I have never been "published" before except in newsletters, so I do hope you are reading this in AIM. No matter how or where you got this article, *please* distribute it to *any* BBS and in your own club newsletter and/or send copies where ever you think it will do some good. Do your part to keep the 8-bit alive and well!

Thank you for your support.

By the way, I am a registered owner of SuperDOS, TextPro and other programs, so I do practice what I preach. Please feel free to contact me and let me know how this works for your club. Our club BBS is PAUGS, (602) 278-8505, 24 hrs.

Dale F. Wooster
934 E. Stella Ln. #20
Phoenix, AZ

Tecno Ninja
An 8-bit Game
from Software Infinity

Ed Hall
AAAUA

Tecno Ninja is one of the new KE-Soft games imported from Germany by Software Infinity. While most of the offerings in this line are strategy games, Tecno Ninja is a futuristic action-adventure.

Its premise hawks up some rather lugubrious, hopefully tongue-in-cheek names. *Tecno* Ninjas (untroubled by the missing "H" in their names) live on the planet *Trivator.* One day, the magic stone of *Sassafras* is stolen, and the warrior *Garagon* must travel to *Sarcendor* to recover it. Luckily he has his, um, *Vaginator Shield* to protect him. Really.

There are 10 scenarios to puzzle through—an old temple, a lost city, an underground lake, an alien spacecraft, a crystal cave and others. Each has 10 screens, and your Tecno Ninja must find an eye-shaped stone before he can advance to the next level. The screens are interconnected in various ways, but since there are only 10 per level, mapping is not necessary.

The play-action resembles a maze-and-platform game with the emphasis not on hair-trigger reflexes, but on locating strategic items. Garagon (an agile, somewhat hyperactive fellow) responds quickly to the urgings of your joystick.

The graphics are excellent. Screens are well-drawn and detailed, enlivened with spot animation. Mysterious discs rotate, energy fields coruscate and terminals with lines of scrolling static are like eyes rolling endlessly upward in their sockets. Everything gleams with a metallic, high-tech sheen.

The sound effects are convincing, and each level has its own musical theme. The best piece greets you at the game's title screen, and is good enough to cause you to linger there. Unfortunately, the screen itself is a muddy disappointment—an anomaly among the otherwise fine graphics. A simple keypress banishes it from view.

The only other complaint I have is the color selection used on some of the play-screens. Occasionally I found them a bit garish.

But these are quibbles. Tecno Ninja is one of the best games in the KE-Soft stable, and it delivers hours of enjoyment. I have no problem in recommending it.

A point of interest about this game is that it's in compiled Turbo-Basic. Readers who wish to advance beyond BASIC, but are not quite ready to take on assembly language, would do well to take a look at Tecno Ninja and see what can be accomplished with Turbo-Basic (a PD language!).

The disk directory is not hidden, thus giving you access to portions of the game. For example, the title screen is in 62-sector Micro-Painter format, so you can replace it with one of your own (as I did). However, the color registers are set by the main program, restricting you to the same ugly combination as the original screen.

If you want to hear the complete musical score, know that RENDESV4.MUS is the name of the theme for level 1 (the airport). A bit of renaming will accomplish the rest.

The disk comes enclosed in a folded card with a pen-and-ink drawing on the front and instructions inside. To play, you'll need an XL or XE machine and a drive capable of reading enhanced density. The cost is $14.50 plus $3 shipping & handling. Order from:

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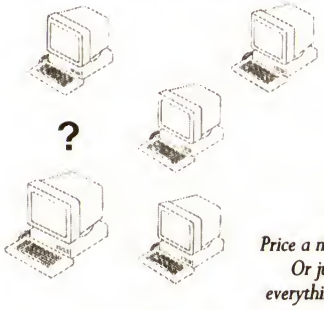

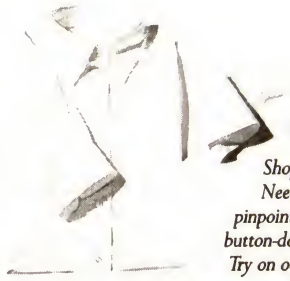

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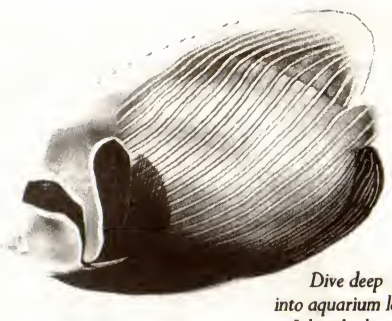

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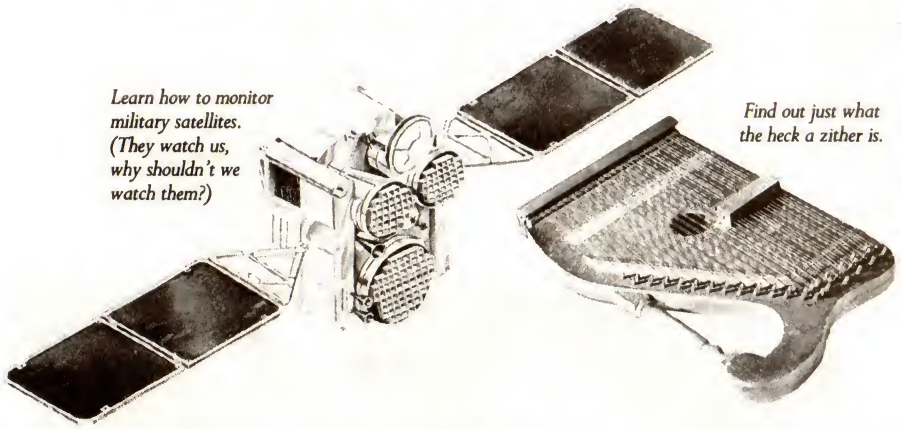

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The Atari Portfolio Palmtop

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Zane Binder

Wait, how can tiny Atari, better known for Pole Position than anything else, undercut the industry giants? What's the catch? Well, there isn't one! The Portfolio's not as convenient as a "full-size" laptop, but its price, portability and size advantages are overwhelming.

The Portfolio, in keeping with its palmtop designation, has the dimensions of a video cassette tape and weights just 15 ounces. That means it's small and exceptionally portable ...but also indicates the QWERTY keyboard (you can reconfigure to DVORAK) is tiny and the LCD monochrome screen is just eight lines deep by 40 characters wide (though it adjusts to scroll to more than 200). The remainder of the Portfolio's design—aesthetics, key feel, quality of materials, etc.—is absolutely top notch.

That's an extremely important concept: it doesn't look or feel like a toy. Someone considered these items as well as strict functionality when the Portfolio was designed. It's an indicator—as in testing autos—of what lies "under the hood" in the items you can't easily see or assess. As mentioned above, the Portfolio uses MS-DOS...but not the current version 5.0.

Built-in (actually burned into ROM), as distinguished from loaded through software, is a modified version of 2.1. Why? Because it's much, much smaller than 5.0 and works well with the Port's internal 128K memory. That figure, to those accustomed to 4MB RAM and more, may seem absurdly small. But it's all according to how you view this tiny computer's mission ... and just as importantly how you count RAM. The Port's primarily designed to use its five built-in ROM applications: an ASCII word processor that types in three languages, a Lotus 1-2-3 compatible 127 column by 255 row spreadsheet, a gigantic diary/appointment book/clock with

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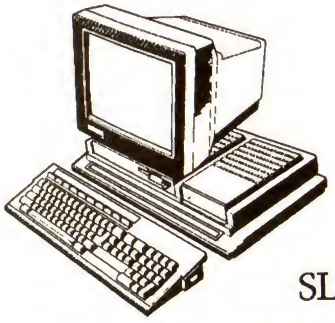

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In the Portfolio's circuit-board heart beats an 8088 processor, famous as this was the engine that powered the original IBM PC. Though slow by today's standards and eclipsed years ago, in this application it possesses almost all the computing power you could want. By now you're probably asking how the Port stores its data. Very well, thank you, on tiny wallet-size, self-powered, metallic RAM cards of up to 128K (512K is coming). Each 128K card holds between 50-60 typewritten text pages by actual test. No more room on one for a really large application? Just switch cards! Decide you need more internal memory for a program? A half-megabyte upgrade's available from a licensed Atari vendor!

Transferring data to desktop units is easy, too. Parallel and serial adaptors are supported, but the easy way is through a "card drive" (less than $100) that allows your main PC to read and write the memory cards exactly like a disk drive. You can run hard drives

or even regular disk drives with the Portfolio, but not quite as conveniently. Printing documents with the Port is a snap, too, either from your office unit or tiny Bubblejet printers.

What kind of software or ROM cards are available for or usable on the Port? An enormous variety, including BASIC programmers, spell checkers, chess, stock/bond/option trackers, numerous special medical programs for busy doctors and nurses, checkwriters and too much else to name. I've been informed even the old Wordperfect Jr. program works on the Port, but I didn't have a chance to test it.

One of the unit's best features is its support within a special Portfolio Forum on CompuServe (yes, you can mate it to a modem). Atari monitors CompuServe daily, there are numerous programs to download, and fellow Port users are always available for the tips these mechanical wonders always seem to require to extract their fullest potential. Atari also sponsors a Technical Support Line, and even out of warranty Portfolios can be repaired for a flat fee.

Aside from the limitations already mentioned, does the Port have any other drawbacks? Just that its documentation is dismal (though books are available).

What's the bottom line? The diminutive Portfolio is the best bargain in the palmtop field. Yes, some have more capability, but also cost considerably more. The Port's size, as with all palmtops, is both a fantastic asset and a liability. But, without a doubt, this tiny, sophisticated wonder will vastly increase productivity while on the go—and won't cost you or your firm a fortune. Atari Corp. of Sunnyvale, CA has sold 250,000 Ports since introduction day, but to say the unit's "invisible" in the US market would be an understatement.

You probably *have* seen it, though: it was the computer young John Conner used to empty a bank 24-hour cash machine in Terminator II.

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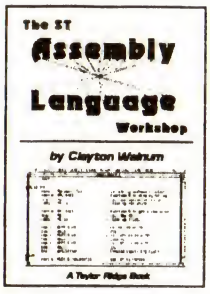

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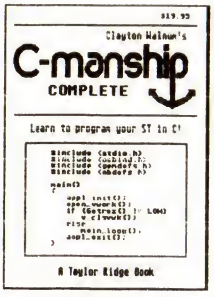

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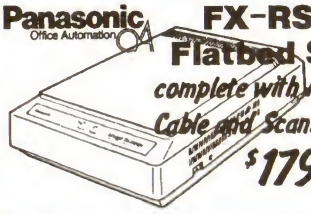

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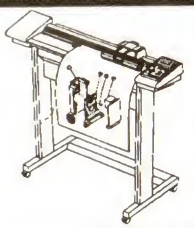

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So You Want to Start a User Group? Part V

Tim Holt
ACCEPT

In the past four articles, we have looked at the pros and cons of getting a user group started, and what it entails to do so. You, as a club founding member, must realize several things by now:

1. You will spend money on the club from your own pocket.
2. You will spend lots of time getting people to just show up at the meetings.
3. You will run into members that don't agree with you and won't help you.
4. You will run into members that want to pirate programs at the meeting.
5. You will "burn out" mentally if you do not get help.

In this column, we will look at how to solve problems 4 and 5.

Aye, Mate! Got any new Programs???

It will happen. Some of the members of your club will try to use the club meetings as monthly copying parties. These people don't care if it is the latest programs, 10 year old programs, or programs that haven't even been released yet.

Our club once had a member that prided himself on the number of programs he had that were still in the beta test version. This guy had every thing. He had a software version of the Spectre GCR! I don't know how he did it, but it worked somehow...

And don't just assume it's the kids that act this way. Our Blackbeard was about 55 years old!

There is only one way to deal with pirating in your club: *sternly.*

From the very outset, your club should have some type of anti-pirate statement, either in the bylaws, in the newsletter, or somewhere. Every member should be made aware at the time of getting a membership that pirating activities will not be allowed.

Plain and simple: The board, the president or some club officer, should have the authority to dismiss a member for pirating during club activities. The member shall forfeit any and all membership fees, and will be dismissed from the club forever.

I know this sounds harsh, but face the music folks; pirating killed many a company's interest in the Atari. Just ask the folks at Spectrum Holobyte. Your club is a forum to support the ST/TT, not a place to do it more harm.

Please note, however, that your authority is limited to the club only. What members do outside the club meetings, however unfortunate, is their business. Billy Bob may be the world's biggest owner of non-purchased software, but if he keeps his nose clean during the meetings, then you cannot take any actions against him.

Also, be on the guard for rumors. Seeing is believing, and that's the only way it should be. There will be times when someone will offer you a program. Politely state that as an officer of the club, you cannot possibly copy software. Set the example for the rest of the club. It may not impress everyone, but that kid in the back might remember it, and that makes your example worth it.

HELP!

There will be times when you simply need help in the club. Here are a few hints and tips to keep things moving smoothly...

1. Remember that the ST/TT line of computers can emulate the Macintosh and MS-DOS worlds very easily.

Therefore, any demo that has been placed out for the IBM and Mac world is fair game. Believe me, almost any Macintosh program released has a demo that the company released for it. All are disabled somehow, but all can be used for your next club's meeting. Where do you get these demos? Simple. If your town has a Mac club, they have Mac PD software and demos. Ditto for the MS-DOS world (No pun intended).

The online services are also a good source. All the big name Mac and IBM developers, for instance, have areas on CompuServe and many of them are also on GEnie. Via CompuServe, you can also access an area run by Ziff-Davis, publisher of many Mac and PC magazines. America Online has a strong and growing Macintosh support. Another good, and cheaper, source is local BBS systems supporting the Mac and IBM. While they may not have as many different files as the pay services, they don't usually charge for access.

2. European magazines always have demo disks with them.

ST Format, ST User, etc., always come with a disk full of demos...lots of them games. You can get these magazines from your local dealer or through the mail order places. Also, the magazines themselves make nice reading for members.

3. AtariUser magazine is one of the best buys a user group can get. Why? Because it's FREE!

That's right, *free.* All your group has to do is pay for the shipping. AtariUser is very up to date, and very nicely laid out. A great magazine at a great price. I don't know how they do it, but support them! You help them, they help you. Contact AtariUser at Quill Publishing Co., 113 W. College St., Covina, CA 91723-2008.

4. Make a magazine, such as AIM, your newsletter.

You save tons of time, and the product is probably a zillion times more professional looking than you could do. Of course, you lose some of the intimacy associated with a locally produced newsletter, but the members in our club howl like coyotes if they don't get the monthly AIM.

5. Remember to go for the unusual speaker.

Have a policeman give a demo on home security, have a computer scientist give a speech on the history of the computer, have a local computer store owner demo his wares, even if he doesn't sell Atari. (He may change his mind after seeing 50 computer users sitting there with checkbooks in their hands...) Get a musician to give a concert at your meeting, or have an artist come in and try some art programs with the computer.

6. Use Atari.

Atari has this guy named Bob Brodie that can answer all types of questions, may be able to point you in the right direction, or will darn near kill himself trying to find out something for you. Drop him a line at Atari or leave him a message on GEnie (to BOB-BRODIE). Really, for all their faults, Atari does sometimes, every once in a while, send out warm fuzzies to user groups. Who knows, it may be your turn to get a fuzzy.

By getting help, you will feel a lot better about the club, and you will avoid getting burned out by doing all the work yourself.

Well, I hope this series of articles has helped you set up a user group in your town. Drop me a line sometime, and let me know how your club is getting along. I would like to know any unusual ideas your club has used successfully in the past for a future article. My address is:

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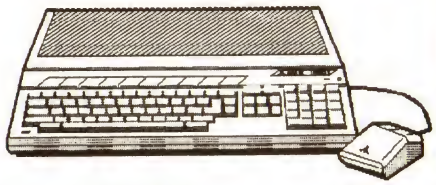

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ST VERSUS IBM HARD DRIVES

ERIC SCHOFIELD
RACE-NC

Purchasing a hard drive for the ST seems to cost so much more than purchasing one for IBM compatibles. Over the past 6-7 years, I've heard this gripe numerous times. Even I have said this. But, after working in the PC industry for several years now, I realize that this simply isn't true.

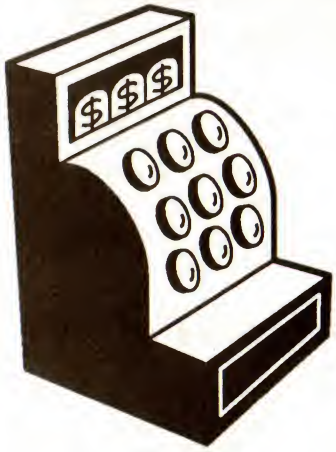
What misleads people are the prices of the bare hard drives boldly printed in the PC magazines. These prices only reflect the price of the hard disk. Once you add all the other goodies, the price of the system is considerably more.

The prices I'm quoting in this article are actual street prices. You can flip through the pages of Atari Interface or any Computer Shopper and get the very same figures that I'm getting.

One of the more popular hard drive configurations is an 80 megabyte hard drive using a Seagate mechanism running at 28 milliseconds. In order to assure that the ST hard disk and IBM hard disk perform as identically as possible, the equipment purchased must be near identical in performance.

There are numerous interfaces available in the IBM world such as IDE, RLL, MFM, ESDI and SCSI. Some are better than others and SCSI would have to be considered one of the best simply due to its versatility and speed. SCSI interfaces are the standard interface used on Macs, STs and Amigas. For this article, I use SCSI interfaces for both machines.

STs use the DMA port to interface with the SCSI host adapter. Due to this fact, the STs have *blazing* hard drive transfer speeds that are far faster than your standard IBM hard disk. In order to match the speed of an ST hard drive system, the IBM system must be configured with a 16-bit controller rather than an 8-bit. This obviously pushes the price up. Here are the results of what I found.



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As you can see, the cost of the ST system is *less* than the cost of the equivalent IBM hard disk system. Even if you were to exclude the case and power supply from the IBM system (you would do this if you had room inside your case and simply needed to add a hard drive and controller), the price is comparable.

If you're in the market for a hard disk, don't feel jealous of all those IBMers out there. You can actually spend less for *great* performance. (Note: To build your own hard disk system, cables are also necessary. These cables shouldn't cost more than $20 total for either platform.)

Advanced Gravis MouseStick

Jim Trageser
SDACE

For the past few years, the debate on input controllers has consisted of "Mouse or trackball?" Now, Advanced Gravis, a Canadian firm known for its line of joysticks, has upped the ante by introducing its MouseStick programmable optical controller.

The Atari platform was one of the first that the Gravis MouseStick supported, and my review copy has been bug-free (although the first unit they sent me was non-operational, they quickly replaced it with profuse apologies and a fully working unit).

The main selling points for the MouseStick are its programmability and the fact that it emulates an analog signal on the ST line of computers. Both are likely to be of interest to Atari users, especially since analog input allows for vector modes, and the programmability allows for custom-designing your own vector. In addition, the MouseStick has a built-in setting that acts as a straight Gravis Switch Joystick.

Atari ST computers use digital input—the mouse sends a signal that it is moving in one of eight directions, and how far it moved in pixels. The MouseStick sends an analog signal, which is non-digital. This means that, in vector mode, you can have a variable rate of cursor movement, depending on how far in any direction you push the stick handle. Of course, in joystick mode, the MouseStick sends a digital signal.

How the Gravis MouseStick Works

The MouseStick comes in two pieces: the stick itself, which looks just like the Gravis Switch Joystick for the Atari, except in a light gray instead of black; and the Gravis MouseStick Processing Unit (GMPU), which is a small (3x5 inch) box with an LCD display that connects the stick to your mouse port. It is the GMPU that both emulates the analog signal and allows the MouseStick to be programmed.

There is no external power source—the MouseStick draws its energy from the mouse port.

As with the Switch Joystick, the stick unit has three buttons—one on top of the joystick and two to the left side of the top of the base. Each of the buttons has a function-selecting dial on the left side of the base which allows any button to be manually set for, in the case of the MouseStick, right or left mouse button or editor button. For most applications, each button will be set to a different mode, giving you all three options.

In programming the MouseStick, you enter the editor mode by clicking five times quickly on the editor button (which otherwise acts as a second "left" mouse button). The LCD display then indicates "Entering Editor." At this point, you access your different menu choices (shown on the GMPU LCD) by moving the joystick through the bottom half of its range of motion (if the range of motion is pictured as a clock face, the menu ranges from 4 to 8). To facilitate programming the MouseStick, Gravis includes a quick-reference menu chart.

The programmability feature allows the MouseStick user to pre-save up to six customized settings. The first variable likely to be entered is the monitor size; one can pre-set and save—by pixel resolution—low-rez, medium-rez and high-rez settings for the ST. While the GMPU includes some of the more common resolutions built-in (low-rez and high-rez for the Atari; other resolutions apparently common on the Amiga platform, which shares the same MouseStick model with the Atari), one can also custom-set the X and Y axis within the editor, allowing any monitor resolution to be used.

Other options within the editor mode include designating one of the buttons as

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"turbo," or auto-repeating. This mode also allows you to set how quickly the "fire" mode will be repeated, in increments from 0.1 to 5 seconds. There is also a "null" mode in which you can create a dead zone around the "centered" position so that small, accidental motions to the handle don't affect the cursor. A "priority" setting makes sure that small movements of the handle when clicking the cursor on a GEM icon don't accidentally cause the wrong program to be loaded.

Admittedly, it took some getting used to when I first hooked up the MouseStick. In high-rez mode, it is very sensitive—far more so than a mouse with the Atari accelerator (which has to be disabled or the MouseStick won't work).

I also found the auto-centering feature was annoying and the GMPU apparently does not let you turn it off. Thus, I found the best way to deal with it was to loosen the adjustable spring on the joystick handle all the way, thus mechanically bypassing the auto-centering.

I now find that I prefer to use the MouseStick for almost all applications. Using the MouseStick requires far less arm and hand motion than a mouse or trackball and results in less fatigue. I simply point the stick handle in the direction I want to move the cursor and hold it steady until the cursor gets there. If I'm in vector mode, the cursor gets wherever I am pointing very quickly.

More importantly, I find I have more control with the MouseStick and am more productive. Using PageStream with the MouseStick is a dream compared to my stock Atari mouse. And while artists may prefer the more "natural" feel of a mouse for drawing programs, I like the control I get with the MouseStick.

For drawing programs, flight simulators, etc., the vector capability can make a dramatic difference in performance and handling. The vector mode allows you to set up the MouseStick so that the rate of cursor movement varies with how far you push the stick away from center.

The instruction book is easy to read and understand, and the menu chart doesn't take long to memorize. All in all, the MouseStick, for all its options, is easy to learn, making it an effective tool.

A Gravis spokesman said there have been problems with Mega STs, and was unsure how the MouseStick would interface with the TTs. But he assured me the Mega bug was easily fixed with a program Gravis would send free to any Mega user. Also, 8-bit owners using a GUI program may not be able to use the Gravis.

The price is steep; manufacturer's suggested retail price is $99.95. But, for those who are uncomfortable with a mouse or trackball, or who simply find they don't have the amount of control or options they would like, the MouseStick may be the answer.

[About the Author: Jim Trageser is a 10-year user of Atari computers, and he currently owns an Atari 800 and a 1040STfm.]

A-T-A-R-I

Answers, Tips and Relevant Information

Ultra Speed Plus

Paul Alhart (AFED)

One of the most cherished things we have is time. It seems we never have enough of it, so whenever something comes along that promises to helps us save time we jump at it. Be truthful now, why else would you have bought that super-duper dicer/slicer Veg-O-Matic that is stored over the refrigerator? OK, but that microwave oven sure is a time saver.

Well, in the computer world where time is measured in microseconds, faster is definitely better. After all, a big selling point of any computer is how it will help you get organized and save you lots of time.

Sooner or later though, time seems to lose its relevancy. Two minutes to do a former 30 minute job seems much too long if the same task can be done in one minute. This is the main reason I was anxious to try out the Ultra Speed Plus from CSS.

US+ is designed to be installed in an 800XL or 130XE computer and gives you three different operating systems (O/S) that are switch selectable. (More on those later.)

Installation requires some soldering, but the instructions and diagrams are clear and easy to follow. Installation takes about an hour from start to system checkout. If you don't feel at ease inside your computer, CSS offers free installation for this, as well as any of their other products.

As mentioned above, the US+ has three switch-selectable operating systems. Following is a description of each.

XL-FIX Plus—This O/S makes your XL think it is a 400/800. This eliminates need for Translator programs and still allows you to use a RAMdisk on machines with extended memory. A Binary file loader is built in, the key repeat rate has been speeded up, and the effect of the Option key has been reversed when booting. (Hold down the Option key to enable BASIC.)

Standard XL/XE—This O/S is the same as what is in your computer now.

Ultra Speed Plus—This O/S gives your computer more speed in several ways. Disk I/O is about three times faster than normal when used with XF-551 drives or modified drives like Happy (810/1050) or Super Archiver, US Doubler, Klone, Duplicator or Density Doubler (all 1050 mods). The key repeat rate has been increased for faster editing. The Faschip math routines have also been included for faster and more accurate floating point math which increases program execution speed.

Although the speed is what sold me, US+ has many more great virtues. Any one of them could be a good enough reason to purchase US+. *Some* of them are:

- A built-in RAMdisk handler allows a RAMdisk to be used with any DOS
- Several functions such as key click, background color, screen DMA, I/O sound and more can be toggled via the keyboard
- Drive numbers can be reassigned using a drive configuration menu, so you can boot from any floppy, or even from your RAMdisk
- Cold Boot without losing RAMdisk contents, even if the system is locked up
- A sector copier is included that uses no program memory
- The OPTION key is reversed during boot. (Hold down OPTION to enable BASIC)

So what do I think of US+? I couldn't live without it. I get this warm feeling whenever I hear my programs loading in at Hyper-Speed. My wife thought the faster I/O sound was the phone ringing. Although it's still not as fast as hard disk, it sure is a lot more affordable.

I have used the drive configuration menu to make my RAMdisk Drive #1. That way, I can run programs out of RAMdisk that only support one or two drives. You may not associate this with speed, but it is a real time saver. I copied AtariWriter's dictionary to RAMdisk, made the RAMdisk Drive #2, and watched it *fly* through documents as it checked my spelling.

Another time saving use is with disk/sector editors. I can search or scan a whole disk in seconds if it is first copied to RAMdisk. Making the RAMdisk Drive #1 allows me to cold boot from the RAMdisk to verify my changes. I then can set any other drive to be Drive #1, reboot any DOS with my RAMdisk still intact, and copy the RAMdisk back to floppy. All this copying may sound time consuming, but it isn't with US+ fast I/O.

I have found no compatibility problems with any XL/XE software using US+. However, the original XL/XE operating system is always just a switch click away just in case.

CSS claims that, with US+, powering down to recover from a lock up is a thing of the past. So far, I have proved them right. No matter how bad I freeze up my system, pressing HELP/RESET always initiates a cold boot without erasing my RAMdisk or clearing any extended program memory.

Is there anything I would change? Sure, but only out of personal preference. Both the XL-FIX and US+ operating systems reverse the effect of the OPTION key at boot up, while the standard XL/XE O/S does not. To avoid confusion, I would make them all the same. Since I will probably spend 99 percent of my time using only the US+ O/S with all its neat features and speed anyway, forget I mentioned it.

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THE GOOFY GURU

Space Bars and Peripheral Switch Boxes

Charles Kelly (SNACC)

Atari 800 Space Bar Repair

If the space bar on your Atari 800 has broken in any way, the space bar is probably hanging. If not, the plastic piece of the bar is easy to pop out.

Pop it out. Look at the white plastic square in the center of the exposed area. Press the square. If it moves up and down, go on to the next paragraph. Otherwise, take a firm grip with a pair of needle-nose pliers and pull out the white plastic piece. Use a firm, even grip.

You should find a spring that is snagged. Snip out the metal pieces other than the spring and reassemble. The white plastic piece should now work and come back when pressed (those metal pieces are usually the actual switch, but we are bypassing them altogether).

Now, look at the two exposed wires on both sides of the black square that the white piece was in. Cut them with a razor blade or knife as close to the front as is exposed. Solder a 4-inch length of insulated wire to each. Tack these down, where soldered, with Krazy Glue or a similar product.

Take the left wire and strip back about 1.5 inches. Do the same on the right. Wrap six to nine turns of the left wire around the piece the space bar snaps into. Take the right wire and Krazy Glue the end just under the right end of the same mounting wire on the right end. This end should rest on black plastic. Take out some of the slack on the righthand side by tacking down the middle of the wire to the off-white or beige board.

You should add a first step if the tongue where the space bar presses the switch is broken also. Just glue it back after checking and/or repairing the spring action. Then go ahead with the wire cutting steps. *Note:* In some rare cases, the colors mentioned here will be different on your computer, but this is not too critical.

The Mucho Simpler Peripheral Switch

Forget all of the complicated articles you have seen about building peripheral switching boxes. But, do call in any old 810 rear boards or finally dead 835 or 850 boards you can find. Bless their little hearts, but some of the articles published on this topic have been too complicated. Start by looking at whatever old peripheral board you have and examine all of the traces that connect to both CIO ports.

It does help if you have a good diagram of the port connectors. You begin by marking the traces between the port connectors and drawing a line around all of the traces that join the ports. You want them left totally intact. Now, take a serial connector and snip off one end. Take one probe of a VOM and put it in Pin 4. Find the wire that goes to Pin 4 and mark it. Do the same for Pin 6. Solder the wire to Pin 4 to the wire for Pin 6.

Plug in the cable end to one of the serial ports. Test for continuity between the remaining wires and the port with the cable left plugged in. Skip the wires for Pins 4 and 6. Where the wires show continuity, solder them to the board at the appropriate pins of one port.

Unplug the connector. It will be the input to your switch box. Now solder a wire to where you joined the wires for Pins 4 and 6 and wrap tape around the connection. Take this new lead and solder it to the center pole of a normal two-position selector switch (SPDT type). Be sure to use a switch that is small enough to fit on top of one of the connectors.

Now, examine the port connectors themselves. There will be a series of leads that curl down from the connector to the board. As close to the board as you can, cut the leads for Pins 4 and 6 that come off the connectors. While both connectors must have these leads cut, only one pin has to be used to supply the ground signal. You are unlikely to cut both pins too short or to break them both. Pins 4 and 6 will be joined in almost all Atari serial peripherals down the line. Try to use both pins, though.

Solder leads from these pins, at the connector, to the switch contacts of your selector switch. The leads from one connector go to one of the outer contacts. The opposite switch contact is then wired to the opposite port connector. Each switch contact should be wired to 2 pins, but breaking one pin will still leave you with a working switch system.

You should now have a decapitated serial cable wired to one connector and a switch wired between the ground pins. Now, cut the port connectors free along the line you drew along the outside of the traces that go between both connectors. Use a saber saw and try not to damage the board or the cable you soldered to the pins of one connector.

Glue the switch to the top of one connector. Check for shorts and other defects. Finally, wrap with electrical tape, leaving the switch lever exposed.

This is so much simpler than other articles that would have you adapt RS-232 switch boxes or wire in 9-pole double throw switches. The cables don't need extra shielding and only the ground signal leads need to be switched. There is even an advantage in that switching the ground signal avoids some handshake problems, etc. Those other articles also leave out several steps that are needed with a project like this.

You should end up with a cable that has a fat end with two connectors and a switch exposed on top of one connector at the fat end. The critical step, sawing the board around the traces that link both port connectors, is always tricky.

A similar approach can be used to make a new cable that has two regular connectors with two port connectors in the middle. Just go ahead and split a cable and connect all leads to the proper pins of one port and repeat with the other half of the cable and the opposite port. This and other super simple serial cable projects are possible because the Atari serial system has such low noise to start with.

[The Goofy Guru series originated in the Southern Nevada Atari Computer Club newsletter and continues to irritate all. Topics covered are varied and obscure. In other words, this column is devoted to topics no one else seems to write about.]

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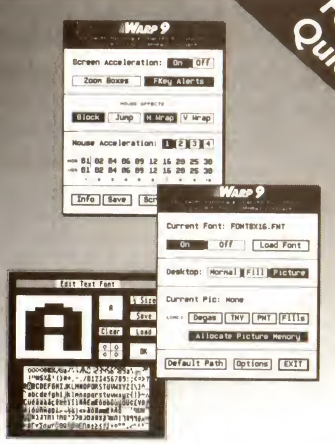

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MIDI in the Midst

The Chicago Show Parts 2 & 3

Kest
Carter-Morgan
ASTMUM

First, let me answer a few questions some readers have asked concerning my previous article: *What were the "unlikeable aspects" of the pre-show reception, mentioned in Part I of your series?*

Intended for Atari developers, exhibitors and show organizers, that reception sent conflicting messages. Although it was held in the hotel's Penthouse Ballroom, someone forgot to make more of the intended guests aware of when and where it was happening. No one posted signs that would have helped them find the place (after riding the elevator to the top, many returned to ground level assuming it was cancelled).

Those that made it were confronted, at the door, by a lil' old lady selling tickets for drinks (even the soft drinks!). The free food consisted mostly of those things that are supposed to be good for us (raw broccoli, cauliflower, carrots and celery). No one seemed to be in charge. Our music helped, but I would have liked to have planned music for the occasion. The vastness of the room, coupled with the small attendance, robbed the reception of its warmth. It wasn't intolerable; it just wasn't comfortable.

Atari and the Chicago ComputerFest organizers could learn from the WAACE show organizers. They hosted a very hospitable reception last October! Perhaps, through experience and attention to detail, the WAACE people developed a formula for success. Listen up, Atari!

Why do you feel it's so important to videotape everything at these shows?

It's true that a lot of the information we tape could be

obtained through print and telecommunications media, but it's that personal touch I'm after. It gives our members a better sense of the Atari community and the forces that effect its stability. They appreciate the work developers put into their products and, after video demos, I'm pleased to find that members are sending in their shareware payments and taking advantage of special offers. One example is a demo of Gribnif's product line by Rick Flashman. It impressed our members enough to stimulate orders. I'm sure Rick is pleased!

Is There a Montreal Show?

One of our group's objectives at the show was to distribute, from our booth, maps and tourist information promoting Montreal's 350th anniversary in 1992 (from May 15 to October 12) and to suggest Montreal as the site for a large-scale AtariFest!

By now, readers must be aware of the Atari Canadian Exposition (ACE '92) held in Toronto, Ontario, this April 4th and 5th. ASTMUM was assigned booth #316. Even though we're mostly MIDI musicians, we asked to be located away from the MIDI area so that our music would not conflict with the 'round-robin' music demos and stage performances slated for that area. Since I'm writing this, weeks before the show, I can't report anything till later. Writing this stuff is like time travel!

Something important is slated for the end of May. It's *"The Largest And Most Innovative Trade Show In Canada For Sound And Image Professionals."* Production '92 will be held in Montreal, Quebec, at Place Bonaventure, May 29, 30 and 31. This year, emphasis will be placed on European and Asian interaction with the North American communications market, demonstrations and workshops highlighting the newest products, combined with the sixth Festival International du Film par Ordinateur de Montreal (FIFOM '92), the second International Competition of New Media Technologies and much more! For show hours, details and information about participating, please contact Mr. Martial Brissonnet at: (514) 842-5333, or Fax: (514) 842-6717.

At Production '92, some ASTMUM members may be present, at one or more of the participants' booths, to help explain how Atari ST and TT-based equipment perform—in music, sound and image production. It is hoped that Atari Canada will also be there.

Let's get back to the show. We jump back in time, now, to Saturday, November 23, 1991.

Many musicians are computerphobes. Historically, they bought computers disguised as "hardware sequencers," often at prices higher than complete Atari systems! Even though musicians have become more sophisticated lately, many simply cram their sequencer program disk in and boot up without useful AUTO folders or desk accessories; they don't even date-stamp their files. This show, like many shows, was a gold mine of goodies useful to musicians, from the clearly evident to the obscure. I'm hoping such handy items won't be ignored.

Let me whet your appetite by listing the exhibitors most relevant to our MIDI pursuits:

- Atari Corp.
- Guitar Plus
- Roland Corp US
- C-Lab Software
- Hybrid Arts
- CodeHead Software
- Atari Explorer Magazine
- Oregon Research Associates
- Lake County Atari Computer Enthusiasts
- Atari ST/Mega Users (Montreal)

Since I'm reporting on the MIDI (Musical Instrument Digital Interface) aspect of the show, let me get one non-musical MIDI application out of the way—Games! The Milwaukee-based user group, MilAtari Ltd., set up 32 STEs in two groups of 16 players and MIDIed them together to play MIDI MAZE. It was one of the many activities they supervised in the large Gaming Area, just a step away from the main exhibition floor.

Guitar Plus

It's encouraging to see a music store chain participate in shows like this, and with MIDI being one of Atari's strong suits, it's essential that everyone pitch

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in. Bob Lytle, of Guitar Plus (a Chicago area chain with 3 locations), gave two MIDI seminars at the show. One seminar was for the home MIDI hobbyist and the other was geared to professional studio applications.

Bob was also kind enough to provide some of the sound equipment presenters (myself included) needed for seminars held in other parts of the hotel. Chasing around with one video camera, I wasn't able to capture all seminar contents, but reports were positive. At intervals during the show, I stopped to visit at the booth areas Bob managed (Guitar Plus, Roland and C-Lab booths were side-by-side). Most of the products displayed were available in Montreal music stores, but, admiring a C-Lab wristwatch, I filled out and deposited a slip for the random drawing, hoping to win it.

Explorer's MIDI Issue

You're reading AIM right now, but if you're a musician, you should seek out the MIDI issue of *Atari Explorer*, which came on the stands this February. It can serve as a good reference. The Atari Artist supplement to that issue shouldn't be missed.

Interestingly, I got some informative video footage during John Jainschigg's seminar on "Atari Journalism," in which Bill and Pattie Rayl were comparing their editorial policy with John's. One way to see more MIDI-related articles is to write them yourself!

Hybrid Arts

Hybrid Arts has been a long-respected Atari developer. I, personally, know some ASTMUM members that, daily, crank out their work (television music tracks, jazz arrangements, etc.) using Hybrid Arts' sequencing software and their famous device that you connect to the DMA port for up to 64 MIDI channels (the MIDI-plexer).

In recent years, C-Lab, Steinberg and others dazzled musicians with their improved user interfaces and features while Hybrid Arts retained their stodgy, but functional, front end. For a while, it seemed that they were falling behind as they struggled to gain market acceptance with their ADAP Sound Rack hard disk, digital audio recording system. It was expensive and, reportedly, not trouble-free.

As long as Atari Megas (with the internal, Bus Extension slot) were plentiful, their competitor, DigiDesign, made incursions into their territory. But, as the supply of Megas began to dry up, dealers began to push DigiDesign's version for the MAC. This was bad for Hybrid Arts *and* Atari (the new MegaSTEs lack that slot)! From a marketing perspective, things seemed somewhat grim.

Now, Hybrid Arts was back with a vengeance! I was there, capturing all I could on video tape.

Note: In the Atari Artist *section of the Feb. '92* Atari Explorer, *on pages 12 and 13, you'll find James Port's write-up of SmpteTrack Gold, Hybrid Arts' new, flagship sequencer. Their patch editor/librarian, GenEdit, is noted on pages 17 and 18. Music scoring, limited to three parts, is accomplished with their Easy Score Plus notation software, mentioned on page 23. Digital Master, the talk of the Chicago show, and its more expensive relatives, ADAP II and ADAP IV, are detailed in an unattributed write-up on page 22.*

Feeling the camera's weight on my shoulder, I tried to get a stable position as Hybrid Arts' Sales Manager, Jeff Naideau, triggered an impressive demo on their $4500 (excluding the outboard controller) 2 track Digital Master hard disk recording system. With this basic system, the 105 Meg drive provides 10 minutes of stereo recording at 44.1 kHz. Jeff alerted us to calculate about 10 Meg for each minute required to determine hard drive choices meeting users' needs.

Before launching the second segment of music, he stated that the recording (taken from a CD) was 64 times oversampled during record and 8 times oversampled during playback, obviating the need for special apogee filters. To extend sampling time, the lowest selectable rate is 22 kHz; not the figure given in Atari Explorer.

Up to 200 markers can be placed, visually, in each sound file as "auto-locators" (edit points) using the Atari's function and Tab keys. He demonstrated the ease of marking two points in a musical phrase and "looping" that section to play over and over.

The markers also allow anyone to reorganize the order segments are played (with noise-free, electronic splices) through an easily accessed, programmable play list. With the ability to have up to 8 files open at the same time, the possibilities are endless for manipulating large and small segments of files, and creating new ones, in the digital domain.

Jeff made the point that Quebec's Celine Dion, and her keyboard player, use this equipment in live shows and vary the play list, nightly, to keep things fresh.

Although the demo was conducted on a color monitor, the software works with mono monitors as well.

They had not yet launched their 4 track version (it was planned for a March debut) but Jeff mentioned future "software links" with SmpteTrack Gold for interaction with the 4 track version. By now, all of this should be available.

In order to highlight important details about their multi-tasking environment and give proper coverage of their products, I'll have to finish my Hybrid Arts profile next month. In the meantime, here's their address: Hybrid Arts, 8522 National Blvd., Culver City, CA 90232, (310) 841-0340.

If you think it's painful—not getting to the end of this in one shot—think of me. I'm still holding the camera!

See you next month.

[About the Author: Kest Carter-Morgan is an audio/video recording engineer, electronic prototype designer and computer repair technician specializing in ST-related projects. He is one of the founding members of Atari ST/Mega Users (Montreal).]

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Diamond Back II

Bill Rayl

What would computers be without hard drives? I can remember, barely, the days before I had a hard drive connected to my computer. It's like a bad dream that's nearly gone from my memory.

Seriously, though, hard drives are very nearly an essential part of any productive computer setup nowadays. Their relatively low cost and ease of use make them a high priority peripheral purchase. For DTP, animation, MIDI or graphics design work, a hard drive is practically a requirement.

With all their convenience, hard drives do have a drawback—you can come to depend on them too much and not back them up often enough. Backing up a hard drive is probably one of the most *boring* things you can do with your computer. It ranks up there (or down there) with watching integrated circuits oxidize.

Of course, if you don't back up your hard drive, you're just asking for trouble. I personally believe there is a chip somewhere in each computer that monitors hard drive backup frequency. If a certain period of time goes by without a backup, *whammo.*

OK, maybe I'm being a little paranoid here. Paranoia is, after all, what makes you back up your hard drive. It's like buying life or health insurance. You hope you never have to use the insurance, but you sure feel a lot safer when you have it.

Insurance Policy

Continuing the insurance policy analogy, some policies give you better coverage than others. When it comes to insuring the health of your hard drive data, Diamond Back II from Oregon Research is one of the best options available.

Diamond Back II can handle all your hard drive backup needs. From full or partial file backups to GEM or Spectre image backups, Diamond Back offers more backup options that any other competing product on the ST. It even handles partition sizes larger than 16 megabytes.

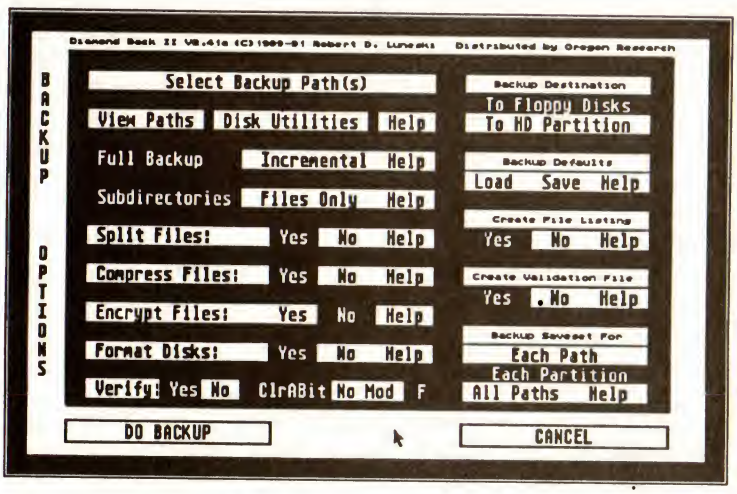
When you first run the program, you're presented with a dialog box from which you make four main choices—File Backup, Image Backup, Full Restore or Partial Restore.

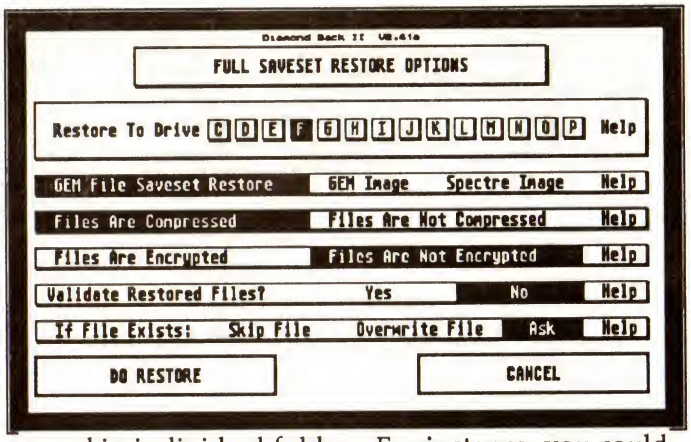
File Backup

The File Backup option leads you to a dialog box where you set the various backup parameters. The options here are numerous. You can choose full or incremental backup and to include subdirectories or only files in the backup. You can opt to split files across backup disks, compress the files while backing them up and even encrypting the backup for greater security.

The ability to split and compress files are useful options that translate into using less floppies to complete the backup.

Diamond Back II also lets you define the path(s) to be backed up. You can select multiple hard drive partitions, multiple individual subdirectories within partitions and even specific file masks. An "exclude paths" option lets





you skip individual folders. For instance, you could choose to back up all *.DOC and *.TXT files on Drive C:, all files on Drive D: excluding those in the TEMP folder and all files found in the E:\SAVEME\ subdirectory.

Unlike many backup programs, Diamond Back II gives you the option of backing up to either floppy disks or another hard drive partition. This is a useful option for SyQuest owners or people who use a second hard drive for backup. *[For owners of a SyQuest as their only hard drive, the Hayai backup package from Machine Specific Software would probably be a better backup alternative to Diamond Back. Hayai allows switching from one cartridge to another .]*

Diamond Back further gives you the option to create a listing of all the files being backed up, including the backup disk numbers on which they appear. This listing is extremely useful for finding individual files for later restoration.

The Create Validation File creates a list of either 16-bit Checksums or 32-bit CRCs (your choice) for each file in the backup. Later, when restoring the files, you can use this list to verify the integrity of each file as it is restored.

Disk Utilities

Selecting Disk Utilities from the Backup Options menu presents a sub-menu with a number of useful choices. From here, you can create the above mentioned file list or validation file, view text files, get disk statistics and more.

Probably the most used option here is the one that estimates the number of floppy disks you will need for your backup. A nicely organized chart shows you how many disks are needed for each formatting option you can choose.

Formatting

Another area in which Diamond Back II excels is in disk formatting options. Available options include single or double sided, 80 or 82 tracks and 9, 10, 18 or 20 sectors per track.

How can you format a disk with 18 or 20 sectors per track? Well, you need a High Density (1.44 meg) floppy drive like the one Atari now sells for the MegaSTE and TT or like in the HDrive kit from Omnimon Peripherals.

You also have the choice of normal, Twister or Super faST skewing. Twister format is popular because it noticeably speeds up disk access. Super faST format is even 20 to 25 percent faster than Twister! If you have a lot of floppies to back up to, you'll appreciate the speed increase.

Image Backup

While image backups are not always the best of choices, they are extremely fast. When done in conjunction with full and incremental file backups, they offer an extra level of security...just in case.

Diamond Back II can perform an image backup of your GEM partitions that only backs up sectors actually in use on your hard drive. If you only have eight megs of files on a 12 meg partition, Diamond Back only backs up the eight megs. This gives you the ability to restore the image backup to a partition that is of different size than the original backed up partition.

Users of Gadget's Spectre GCR or Spectre 128 can perform an image backup of their Macintosh partitions. While it is preferable to do a file backup from within Macintosh mode, a Spectre image backup is far better than no backup at all. Diamond Back's Spectre backup is a full image backup—if you have eight megs of files on a 12 meg partition, you're going to backup all 12 megs. This is typically how image backups work.

Image backups have a number of drawbacks over file backups. First, you cannot restore individual files or subdirectories. Second, if your hard drive has any serious file errors at the time of the backup, those file errors will be backed up as well. Finally, disks containing an image backup cannot be read from the desktop. If you attempt to get a directory of an image backup disk, you will most likely have to reboot your computer.

For people who just don't have the time to do full file backups, image backups do offer a better alternative than no backup.

File Restoration

Restoring your files after a crash or just to defragment your drive is about as straightforward as it can possibly be. In fact, all of Diamond Back's functions are intuitive enough that you really could use the program without ever reading the manual. Built-in help for just about every option makes the software very easy to use.

For file restore, you can choose full or partial restore. The options here are numerous and correspond mostly to options available when backing up your files. You basically tell Diamond Back if the files are compressed, if they are encrypted, which files you want restored and where to restore them to.

Manual

While it's true that you might not need to read the

manual to use Diamond Back II, there is a lot of useful info in it. The 40-page manual details all the options available in the program and is well written.

A section entitled Tricks and Tips on pages 30-33 gives you some hints on good backup strategies. It also tells you how to take advantage of Diamond Back's automatic disk switching capability and describes the automatic disk error recovery features of the software.

Support

The Diamond Back manual contains a step-by-step process for problem solving. Following these steps may fix your problem without ever having to contact the company. If, however, you still have problems, the staff at Oregon Research is very helpful. As the manual states, they "will do everything in [their] power to assist you."

The program's author, Bob Luneski can be contacted on GEnie, CompuServe or Usenet.

The support offered by Oregon Research for this product is superb. Fairly regular upgrades are often made available via patch programs available for download from the online services.

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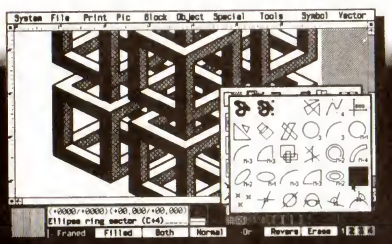

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You can work on up to four pictures at once, even show them all in the same window at varying intensities. Unbelievably fast block and lasso functions include rotating and scaling. MegaPaint can import Calamus outline fonts, and use them with its text editor and mail-merge features. A module is included to access several popular scanners; the ability to call external modules means that MegaPaint will never go out of date.

With all this power, you might expect an equally enormous price tag; but perhaps best of all, MegaPaint II Professional is priced well under $200!

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ACE '92

The Atari Canadian Exposition

Mark Pierro
BRAG*ST

ACE '92, the Atari Canadian Exposition, was held in Toronto on April 4th and 5th, 1992. A group of BRAG ST members made the one and a half hour trip from Buffalo on Sunday, April 5th. We had a great time!

Overall, the tempo of the show was upbeat. Throughout the day, all the vendors I talked to were very pleased with their sales. The show also had some exciting events: the world's fastest ST, MultiTOS, and the debut of Flash II, GEMulator and STraight FAX. Early attendance figures were 2,000 people on Saturday and 1,000 on Sunday.

My first stop was the CodeHead Technologies booth. I had never met the CodeHeads before, but as I approached their booth, there was no mistaking them. John Eidsvoog was furiously taking orders and upgrades (and this was only five minutes after the show opened!). When it was my turn to upgrade my Quick ST to Warp 9, they ran out. But John promised it would be in the mail as soon as they got back home. (Sure enough, several days later, my software arrived.) Charles Johnson was enthusiastically demonstrating MegaPaint Professional on a TT (there were TTs and MegaSTEs everywhere). With great satisfaction, I personally gave Charles a shareware payment for his Little Green Selector and Pinhead programs.

Next it was on to Dorothy Brumleve's booth to upgrade my kid's Kidpainter disk. Dorothy was showing her latest educational program called Multiplay, a program that makes math fun.

Next, I wandered into the Atari booth in the center of the room. There they had Portfolio, Lynx, ST and TT displays. But what caught my attention was the much talked about ST Book. This notebook computer impressed me with its small size and very readable screen. The "vector" touch mouse pointer controls were unusual, but once you got the hang of it, the pointer was easy to control.

Atari's Bill Rehbock was demonstrating MultiTOS on a TT in the center of the booth. He said Atari is working on this multitasking operating system (based on MINT) and it should be available for all ST users sometime this fall.

Goldleaf was showing their high-end graphics and DTP software. An impressive demonstration of the capabilities of their Retouche Professional, a 24-bit color photo retouching and digital lithography program, continued throughout the day. A photo was scanned, output to a thermal wax printer and then the image was transferred onto a T-shirt. They were also demonstrating MacRead, a program that lets you read data files from a Macintosh formatted HFS hard disk or Spectre formatted HFS floppy disk and store them on an ST disk.

Atari's Bill Rehbock showing MultiTOS

Phil Comeau was demonstrating his Grammar Expert and GramSlam programs. Gribnif Software and Double Click Software were running show specials on their software line. British Magazine Distributors were offering

John Trautschold

subscriptions to ST Format, Atari ST User, ST Action, ST Review and ST Applications.

Missionware Software was busily selling Flash II, the long awaited update to the very popular ST terminal program. John Trautschold was offering an upgrade from Flash to Flash II for only $29.95 as long as you brought your original disk.

It was a pleasure to meet Darlah Potechin, Atari ST sysop on GEnie. She was able to answer a few questions about Aladdin by showing me while she was online to GEnie. Rod Coleman's demonstration of his new text editor, Sudden View impressed me so much that I bought a copy. This program is amazing—it really is "like a paint program that uses text instead of colors". The Toad Computer booth was so busy that it was one o'clock before I could get near enough to see what they were selling. Bill and Pattie Rayl were there, taking subscriptions for Atari Interface, selling AIM disks, giving away CompuServe signup kits and selling Silhouette for Maxwell CPU who couldn't attend the show.

Dave Small had "the world's fastest ST" on display, a Mega ST2 with a monochrome monitor and a SyQuest drive running at an incredible 46MHz!

Joppa Software introduced the STraight FAX software, an ST/TT communication package which allows sending and receiving of FAX documents to and from any Group III compatible FAX machine. Requirements are 1 MB of RAM (minimum) and an industry standard Class 2 FAX modem.

Darek Mihocka was showing his GEMulator for the first time. The GEMulator is a software/hardware combination that runs your ST software on an IBM compatible PC. Darek was running on a 33MHz 486 and inviting show goers to pop their ST disks into the drive and test their favorite software. The screen display was a little slow (Darek says 100% compatibility was his first goal and now he'll start speeding it up), but everything seemed to work fine that was thrown at the GEMulator.

Cybercube had a booth at the show and they were demonstrating their CyReL Sunrise M16-1280 true color, high resolution graphics card for the MegaSTE and TT. The graphics were truly astounding, with resolutions from 256x200 to 2048x1024 supported! The guys at Cybercube Research have had the board and VDI driver in beta test for months and are getting ready to ship.

ABC Solutions was selling the newly updated Timeworks Publisher 2 which is being imported from the UK. ABC also had Home Accounts 2 and the whole line of the latest Kuma Software releases from overseas. Timeworks Publisher 2 looks to be a big improvement over the original Timeworks Publisher ST.

All in all, there were about 70 booths and nearly 50 companies at this show, including a separate area for MIDI applications. The MIDI area had such big name companies as Korg and Steinberg-Jones represented, as well as area MIDI dealers. There was also a Lynx gaming room where the kids could rent a Lynx and let the parents browse the show. Seminars were also offered throughout both days.

On our return trip to Buffalo, we were stopped at the US Border and asked to declare our purchases. As the customs inspectors looked at our software packages, they noted that the items were all American goods (and therefore no duty was required). But it was difficult to explain to them that we had to travel to Toronto to buy software for our computer. Hopefully that will change soon. From the experience of ACE '92, it looks like things are starting to improve in the Atari ST world.

Ralf of CyberCube

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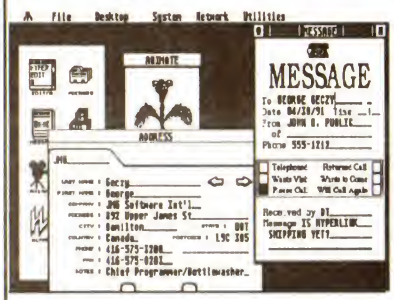
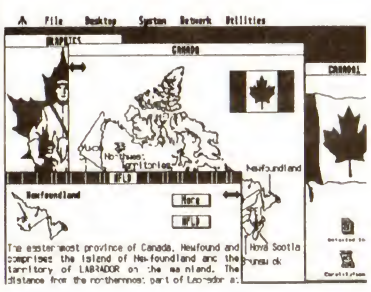
Example # 4 : Relational DBase



As a simple example of a Relational Data-Base, HyperLINK can be set up to "link" any given field in a data-base with a field in another data-base. In the Message HAP for instance, there is a link to the Address HAP and HyperLINK performs a search for a matching record.

Example # 1 : The Canada HAP



One of the most popular, and common uses for any Multi Media product is Education. The Canada HAP illustrated here, is an example of how Text, Data, Graphics, and Sound can be combined for an interactive educational tool. eg. Click on a Province get a text file on that Province etc.

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FALCON 030

A Preview of Things to Come

Bill and Pattie Rayl

To steal a line from the great H.G. Wells, we have seen the future and it works! At the recent ACE '92 show in Toronto, we had the privilege of seeing Atari's newest machine, talking to developers about their impressions, and discussing with Bill Rehbock Atari's plans for production and marketing of the Falcon 030.

We can't disclose all the details of what went on in those meetings. (Well, we could, but Atari would never let us into another such showing.) We can, however, tell you a bit about the computer, since a few other reports have already been made public.

We have to warn you that this is going to be a very positive, upbeat article about Atari's future. If you're a constantly pessimistic doom-and-gloomer when it comes to Atari, this article could be hazardous to your view of reality.

Before we delve into details of the Falcon 030 and its capabilities, we must emphasize that what we saw was a pre-production module. Anything and everything we say here could change by the time the Falcon 030 is on the shelves (including the name).

General Overview

The Falcon 030 is planned as Atari's new low end model of a family of computers. As already disclosed on the major computer networks, the machine comes in a case almost exactly like that of a 1040STE. The only visual difference is the color—a dark charcoal gray that matches Atari's new monochrome monitor and the Portfolio.

As the name implies, the CPU at the heart of the Falcon is a Motorola 68030. The actual speed of the 030 was not disclosed as final, but the slowest a 68030 runs is 16 MHz. The machine will reportedly be available in several RAM options, with 14 megabytes being the top end.

All the standard ports you would expect to find on the machine are there—modem, printer, MIDI, etc. A true SCSI port can also be expected, as well as a High Density 1.44 meg floppy internal drive. Atari has publicly announced that all new machines will have HD drives and true SCSI support. The model we saw had a 2-1/2" (tiny!) internal hard drive as well.

Sound and Graphics

The sound and graphics capabilities of the Falcon 030 are impressive. The phrase heard most often from Atari representatives was "more colors than you can see and more sound than you can hear."

The graphics demos shown to developers were of a photographic quality that surpassed VGA on a PC or even the capabilities of an Amiga. While Atari gave no exact specifications, the graphics were definitely better than 256 colors would make possible. Reports that the Falcon 030 supports 16-bit color (32,000 colors) are probably right on the money.

Atari has confirmed publicly that the Falcon 030 supports "True Color." What this means is that there is no color palette on the Falcon. Instead, each pixel on-screen can be any color that the hardware can produce. You are not limited to only a handful of the possible colors. In contrast, the STE supports 4,096 colors, but you can only have up to 16 of those colors on-screen at one time. The True Color standard, which is gaining popularity on other platforms like the Macintosh, is a definite plus for the Falcon 030.

On the sound side, you get CD-quality stereo sound built into the system. It's

probably safe to assume the Falcon 030 supports 16-bit stereo sound.

There are a few other surprises in the Falcon 030 that we can't discuss. The Falcon 030 is definitely going to be a big hit in the Multimedia, video and animation markets. Expect to see lots of high quality entertainment software as well.

The Bottom Line

As you can probably guess from the computer's enclosure, Atari plans to sell the Falcon 030 as a fairly low cost home computer system. Rumors abound concerning the actual retail price for these machines. While Atari has mentioned a couple of prices as possibilities, you will most likely see the Falcon 030 selling for well under $1000 US. Prices as low as $800 might even be realistic. "Incredible," you say? Time will tell. People will definitely be saying that "Power without the Price" is back in a big way.

Atari has also not announced an exact shipping date for the Falcon 030. It is reported that developers will begin receiving machines soon (if not by the time you read this even!). Expect to see the Falcon 030 available to the public before the end of this year. (That's right, 1992!)

Production and Marketing

Unfortunately, we can't tell you any of the specifics of Atari's production and marketing plans for the Falcon 030. Not because we don't know, but because Atari doesn't want us to spill the beans just yet.

The Falcon 030 is the most impressive machine for the home computer market that Atari has probably ever released. Their production and marketing plans reflect that they fully comprehend just how promising this machine is.

Atari has put into motion a plan that offers a great deal of hope for the future of the company, for Atari developers and for all of us as Atari users. While we can't reveal the details, we can assure you that the details are there.

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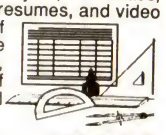

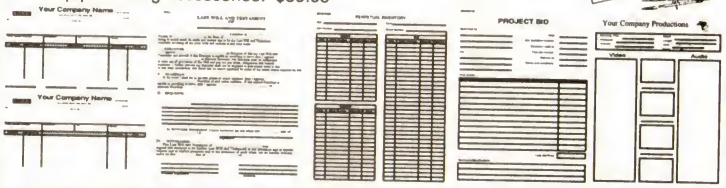

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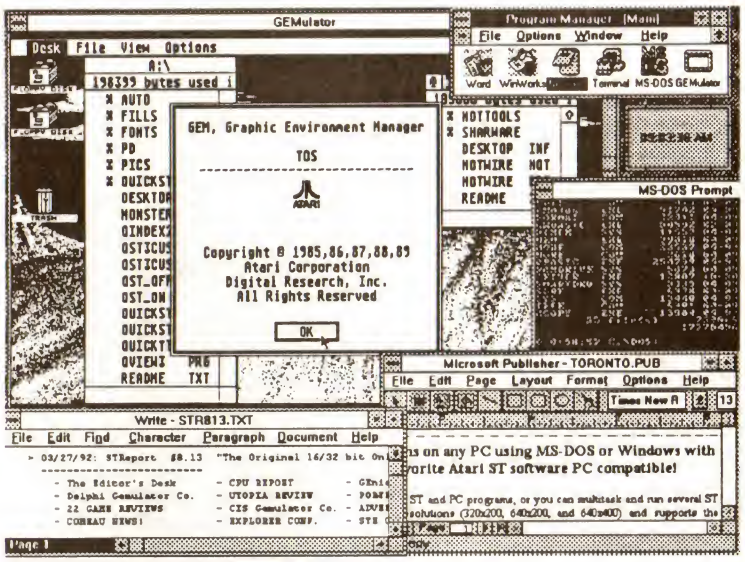

With *Gemulator*, you can run your favorite Atari ST, MS-DOS, and Windows software on the same PC!

The screen dump on the left shows the monochrome ST desktop and several DOS and Windows programs, all running at the same time!

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From the people that brought you ST Xformer II and Quick ST 3.0...

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Compatible with any PC mouse and VGA monitor.
Easy to install. All you need is a screwdriver.

Gemulator includes a board which allows you to plug in any version of TOS, from TOS 1.0, to TOS 1.4, to the new TOS 2.0. Two versions of TOS may be plugged in at once for improved compatibility with some ST software. You can even run two different ST programs at the same time, each one using a different version of TOS and running in a different screen resolution! Gemulator eliminates the need for having separate color and monochrome monitors and allows you to switch between color and monochrome modes without rebooting.

The following are just a few of the hundreds of Atari ST programs which can now run on the PC: **Pagestream, Calamus, ST Writer, Neodesk, Prism Paint, Flash, Tempus, Word Writer, First Word Plus, Degas Elite, Hotwire, Multidesk, Maxifile, GDOS, G+PLUS, Quick ST, Turbo ST, Word Flair, LDW Power, EZ Calc, Madmac, GFA Basic, Sudden View, and Laser C.**

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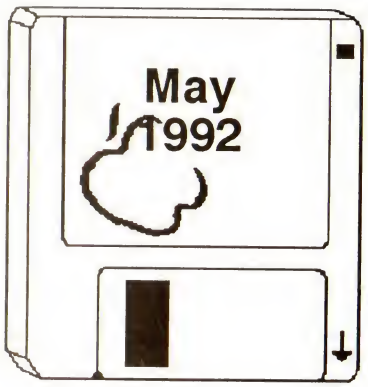


AIM Mac/Spectre Disk of the Month

Each AIM Mac/Spectre Disk of the Month is a double-sided disk packed with some of the best PD and Shareware programs available each month. The disks are available in either Macintosh or Spectre formats. All files are self-extracting Compactor Pro archives. Just double click to extract!

Here is a short description of the files contained on the May '92 Mac/Spectre Disk of the Month:

Disinfectant 2.6—Disinfectant is the premiere Macintosh virus detection and eradication program. It features its own built-in help file which includes a rather extensive section on different Mac viruses. It also includes an option to install a protection init to guard your system from future attacks.

There is a new virus infecting the Mac community called MBDF-A. This virus was first detected in Wales and was later discovered on Internet hiding in a couple of games. The games are "Ten Tile Puzzle" and "Obnoxious Tetris". In addition to these two games, another game called either "Tetricycle" or "Tetris Rotating" has been found to be a Trojan horse that installs the virus. As far as anyone can tell MBDF-A is not destuctive. It does, however, make changes to the System file and seems to take such a long time writing itself that many people reset their computer thinking it's hung. If the reset takes place while the System file is being written to, it will cause the file to be damaged. If this happens, your only option is to reinstall your System files.

Disinfectant combats this, and many other, Mac viruses. We encourage you to use this program to scan your Mac disks. In addition, if you happen to have any of the games listed above we strongly suggest you get rid of them as quickly as possible. You'll be doing yourself, and everyone else, a big favor.

Z-Term 0.9—This archive contains the latest version of a very popular shareware Macintosh terminal program. Z-Term 0.9 contains just about every feature you could want including auto dialing/redialing, macros, logon scripts, ascii capture, X-modem, Y-modem (including batch), Z-modem and CompuServe Quick B protocols.

ASCII Chart 4.2—This archive contains a very useful desk accessory that allows you to view every character in the current font set at one time. This includes all those special characters you can never remember how to make. You simply move the mouse pointer to the desired character and click. ASCII Chart will display the key combination needed to produce that character. There are many more features in this great DA.

miniWRITER—This archive contains the latest version of a great text processor desk accessory. As the name suggests, miniWRITER is small. But don't let that fool you. This DA has become a must have for many Macintosh users. It's great for jotting down notes while working on your computer.

MICN—This archive contains an init/CDEV that replaces the text in your menu bar with icons. Just the thing for cutting some of those long menu bars down to size. The CDEV comes with its own set of menu words and icons, but you can add your own words and icons to the list. It even has a built-in icon editor.

World Time—The CDEV in this archive can display the time and date for a number of cities around the world. You can even add your own cities to the list. World Time takes into account whether it's daylight savings time or not when making its time/date calculations. This useful little control panel device will also adjust your Mac's clock automatically for daylight savings time or standard time as needed.

Kidpix—This archive contains a cute drawing program for kids. It was designed to be easy to learn and use. There are no complicated key sequences to remember and parents can choose to disable the menu bar so desk accessories can't be run. All documentation is included within the program.

Slime Invaders—This archive contains a game which is somewhat like space invaders except that you're fighting slime and toxic waste (yum) rather than aliens.

Macman—This archive contains a very good clone of an old arcade favorite. There are some differences, though. In this version you can choose to make Macman invincible! There are lots of other features as well, such as being able to run the game in slow motion, etc.

Readers can purchase this disk by sending $6 ($5+$1 s/h) to Unicorn Publications, 3487 Braeburn Circle, Ann Arbor, MI 48108, or call (313) 973-8825 and have your Visa or MasterCard ready. Please specify the May '92 Mac/Spectre Disk and which format when ordering.

AIM
ST/Mega/TT
Disk of the Month

All files on this disk are self-extracting archives created with Double Click's Self-Extracting ARC program DC SEA! To use these programs, simply double click the files. Then, click on Extract and select the drive/folder to which you want the extracted files saved. Click on Verbose to get a list of the files in each archive or Exit to abort.

Here's a short description of the files on the May '92 disk. For more complete docs, see the text files contained in most of these archives.

ALICE_12.APP—Version 1.2 of the Alice text editor. Alice stands for Another Little C Editor, is fully GEM-based, supports multiple windows and lots more. Written by Ralf Kaufman of Germany.

BOBBLE.APP—Bobbles is a great game of Tetris with a twist. Arrange the jewels into rows of three to clear them. Great graphics and very playable. Novice, Easy and Arcade levels. Created with GFA Basic using the GP libraries available from DSA. Low rez ST color. Runs great on TT in ST low rez.

CAMELS.APP—Revenge of the Mutant Camels, a fast paced arcade game. One or two player. As a mutant camel, you have to run the guantlet and get to the oasis. In two player mode, you take along your trusty goat friend who doubles as a gun turret. Beware the skiing kangaroos, evil walking sticks and lots more. Low rez ST color. Works fine on TT. Shareware from the UK.

DD10BDMO.APP—Demo version of Double Click's Data Diet! Data Diet is a great commercial realtime compression/decompression program that can save you up to 50-60% of your hard drive's capacity. Using Data Diet is like buying a second hard drive.

FB_BNS09.APP—Basic Natural Science version of the Fleabyte accessory. Fleabyte is a calculator desk accessory that can automatically export its results into any standard GEM window. Fleabyte/BNS supports unbalanced chemical equations, as well as many other "standard" calculator functions.

MPMODS1.APP—A package of external modules for MegaPaint Professional from CodeHead Technologies. Included are import modules for TNY and PC3 pictures, a menu bar module to get at your DAs, a module to call MaxiFile III, and a module to call Wiz Works! ScanLite software to allow scanning directly into MegaPaint with various hand scanners. Also included is a program to let you change some module parameters and a READ_ME file explaining how to set up and use the modules. You must have MegaPaint to use these modules.

MPMODS2.APP—Another set of external MegaPaint modules. This batch contains import modules for Calamus Vector Graphics (.CVG), Calamus Fonts (.CFN) and full pages printed TODISK from within Calamus. MegaPaint is required to use these modules.

MSPACMAN.APP—A great Ms. Pacman clone. One or two players (Player 2 gets to chase Ms. Pacman as the red ghost). Lots of fun. Created with GFA Basic using the GP libraries from DSA. Low rez ST color. Runs fine on the TT.

SELCTRIC.APP—Selectric 1.0 is a feature-full replacement file selector for theST/STE/TT. A nice interface, with many options and controls. Includes a desk accessory to call the file selector from within any GEM program. Shareware from Germany.

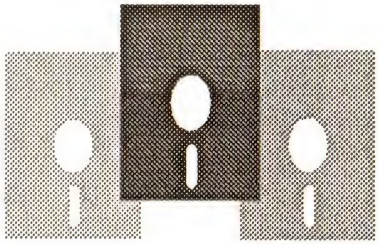
TLC_ATTR.APP—The Attributer runs as a program or accessory in color or mono. It allows changing file attributes (hidden, read-only, system, archive) as well as updating the date/time stamp and setting the fastload bit for TOS 1.4. It also allows deleting those pesky files that won't delete, changing filenames and disk volume labels. Shareware from TLC Software.

TLC_BOOK.APP—The TLC Address Book Version 2.01 has custom GEM editing routines, hot keys in all the dialog boxes, variable page and label size, and various other added features. This is the must-have version! Prints labels for addresses, occasions (birthdays, anniversaries, etc) by month or year, address book pages, date book pages by month or year, etc. It even allows multiple printing of one address (great for return address labels). Configureable for any printer. Shareware from TLC Software.

TLC_SHOW.APP—A simple viewer for compressed or uncompressed Spectrum pictures. No fancy slide shows and not a lot of parameters to worry about, just choose a picture then press a key. Great for quick viewing of Spectrum pictures. Color only. Shareware from TLC Software.

TRIPLES.APP—A Concentration clone. Match three of a kind to clear squares and reveal parts of a picture puzzle. Solve the puzzle to win the round. One to three players. ST low rez color only. Works fine on the TT.

Readers can purchase this disk from their local AIM Participating user group or by sending $6 ($5 + $1 S/H) to Unicorn Publications, 3487 Braeburn Circle, Ann Arbor, MI 48108 or call (313) 973-8825 and have your Visa or MasterCard ready. Please specify the May '92 ST/Mega disk when ordering.



8-bit (Classic) Disk of the Month May 1992

Each AIM 8-bit Disk of the Month is a single-sided, single density "flippy" packed with software. To extract files in the ARC format, you need the UNARC .COM utility. To decompress files with a DCM extension, you need DISKCOM3.UTL. Both programs are available from most BBSes, user groups or you can purchase the April/May '91 AIM 8-bit Disk.

Here's a short description of the files on the May '92 8-bit disk:

Side 1

CGS091.ARC—Color Graphics System written by Tom Hunt. Lets you view online graphics while connected to a BBS supporting CGS. Works with BobTerm and possibly other packages. RAMdisk or hard drive required.

DASOMEN.DCM—The Das Omen demo from Germany. Use Discomm to uncompress, then reboot. Press 'A' to begin the demo once A:DAS OMEN appears on your screen.

Side 2

DIRPRINT.ARC—Diamond GOS Directory Printer accessory written by Kevin Packard (WNYAUG). Dumps DOS 2.x compatible disk directories to printer from within practically any program. Requires Diamond GOS cartridge from ReeveSoft.

MATRIX.ARC—A utility to help you create alternate character sets. The program presents a character matrix on-screen and lets you fill in dots. Then, Matrix prompts you to press the key of the character you wish to replace. Character data can be saved to disk. BASIC program.

FNTDSPLR.ARC—Font Displayer lets you preview your font library by displaying font names from disk in their actual fonts. A great shareware utility from Steve Walker (ACCD).

FONTLIB.ARC—In case you don't have many standard 8-bit fonts for use with Font Displayer (and other programs, of course), here is a library of over 70 fonts! Lots of great fonts.

Readers can purchase this disk from their local AIM participating user group or by sending $6 ($5 +$1 s/h) to Unicorn Publications, 3487 Braeburn Circle, Ann Arbor, MI 48108 or call (313) 973-8825 and have your Visa or MasterCard handy. Please specify the May '92 8-bit Disk when ordering.

AIM Subscription Form

Name: _____

Address: _____

City: _____ State/Country: _____

ZIP/Postal Code: _____ Phone: _____

Please enter my subscription for

☐ One Year (12 issues) ☐ Two Years (24 issues)

Subscription Rates:

☐ US 3rd Class — $18 for 1 year, $32 for 2 years
☐ US 1st Class — $36 for 1year, $50 for 2 years
☐ Canadian — $42 for 1 year, $70 for 2 years
☐ Foreign — $48 for 1 year, $80 for 2 years

I also wish to receive your Disk(s) of the Month. I am an AIM subscriber.

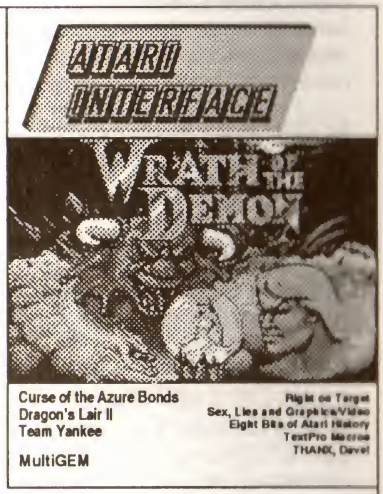
☐ ST/Mega (12 double-sided disks) — $50
☐ Mac ☐ Spectre (12 DS disks) — $50
☐ Atari 8-bit (12 SS/SD "flippies") — $50

Sign me up for your Disk(s) of the Month **only.** I am not an AIM subscriber.

☐ ST/Mega (12 double-sided disks) — $60
☐ Mac ☐ Spectre (12 DS disks) — $60
☐ Atari 8-bit (12 SS/SD "flippies") — $60

☐ I wish to pay by VISA/MasterCard!
Card Number: _____ Exp. Date: _____
Signature: _____
($2 processing fee on orders under $100, $3 on orders over $100)

Please make checks or money orders payable in US funds.
Return this form to Unicorn Publications, 3487 Braeburn Circle, Ann Arbor, MI 48108.



Your Connection to the Atari User's Community

Supporting Atari 8-bit and ST/Mega/TT computers

Alabama

BACE
5822 5th Terrace S.
Birmingham, AL 35212
Alan Brewster (205) 591-9906
Meet: Vestavia Hills Public Library
Day: 2nd Mon. Time: 7PM
Dues: $15/Regular, $25/Advanced
CPU: Atari 8-bit and ST/Mega/TT
BBS: Matrix Co. #7 (205) 323-2016, Matrix (205) 251-2344
Misc: Advanced includes AIM 8bit or ST monthly disk

Arizona

PHAST
PO Box 56413
Phoenix, AZ 85079
Mike Aubrey (602) 870-8360
Meet: Room #101, Devry College, 2149 W. Dunlap Ave., Phoenix, AZ.
Day: 2nd Sat. Time: 10-12PM
CPU: ST/Mega/TT
BBS: ST Base (602) 285-9246, RDS (602) 841-7196, Wild Thing (602) 277-8225

SEVAC
PO Box 662
Chandler, AZ 85224
Marc Dyer (602) 897-0314
Meet: Dobson Ranch Branch of Mesa Public Libraries
Day: 3rd Sat. Time: Usually 10AM
Dues: $12
CPU: Atari 8-bit and ST/Mega/TT
BBS: (602) 833-9216
Misc: Reduces ST/8-bit library prices, club BBS access.

California

ACCESS
PO Box 1354
Sacramento, CA 95812
Bob Drews (916) 423-1573
Meet: SMUD Training Building, Classroom B 1708 59th St., between Folsom Blvd. & R St., off Hwy 50.
Day: 1st Wed. Time: 7:30PM
CPU: Atari 8-bit
BBS: ACCESS (916) 428-8662

AFED
PO Box 5367
Vandenberg AFB, CA 93437
Phil Rominger (805) 736-7147
Meet: Vandenberg Federal Credit Union, Vandenberg Village branch, Lompoc, CA 93436.
Day: 1st Mon. Time: 7PM
Dues: $10/single, $15/family
CPU: Atari 8-bit and ST/Mega/TT

AUGIE
3905 N. Lugo Ave.
San Bernadino, CA 92404
Don Lucia (714) 883-3547
Meet: East Baseline County Branch Library, 27167 E. Baseline Rd., Highland, CA.
Day: 2nd & 4th Sat. Time: 2-4PM
Dues: $25/yr.
CPU: Atari 8-bit and ST/Mega/TT
BBS: StarLink (9600) (714) 688-3204

BAAUG
3691 Eastwood Circle
Santa Clara, CA 95054
Joe Fischer (408) 988-3065
Meet: Agnew Development Center Auditorium, Layfayette & Montague Exp. Santa Clara, CA.
Day: 1st Mon.
Dues: $20
CPU: Atari 8-bit, ST/Mega/TT and Portfolio
BBS: (408) 986-0215

BACE
PO Box 40203
Bakersfield, CA 93384
Tim Hobbs (805) 837-2726
Meet: Pizza Hut, 3017 Wilson Rd., Vons Shopping Center
Day: 3rd Tue.
Dues: $18/yr Full, $12/yr Regular, $6/yr BBS
CPU: Supports Atari 8-bit, ST/Mega/TT, Mac, IBM and Portfolio
BBS: (805) 831-5350

DACE
c/o J. Dickerson, PO Box 673
Diablo, CA 94528
Dan Howlett (510) 827-3805
Meet: Contra Costa County Water District Bldg, 1331 Concord Ave, Concord, CA.
Day: 1st Thu. Time: 7PM
Dues: $20/yr
CPU: Atari 8-bit and ST/Mega/TT

FRACUS
2167 Richart Ave.
Clovis, CA 93712
Tom Hancock (209) 885-2817
Meet: Four Seasons Mobile Home Park Recreation Room, Fresno, CA.
Day: Last Sat. Time: 6PM
Dues: $20/yr or $10/semi-annually
CPU: Atari 8-bit
BBS: (209) 251-5338
Misc: Membership includes club disk of the month/newsletter and AtariUser

MITARI MIDI
1848 N. Gramercy #302
Los Angeles, CA 90028
Brian Valentine (213) 461-5407
Meet: Meets at club address, a MIDI sound studio run by Brian Valentine.
Day: Last Sun. Time: 2PM
Dues: $15/yr
CPU: Atari ST/Mega/TT
Misc: MITARI supports audio creativity on the ST/STE. All current members are engineers or producers.

RAM
PO Box 112
Camarillo, CA 93011
Timothy McCoy (805) 482-4788
Day: 3rd Wed. Time: 7:30PM
Dues: $25
CPU: ST/Mega/TT
BBS: (805) 987-6985
Misc: Member of ACENET consortium, active at the Glendale show.

SBACE
4802 Avenue B
Torrance, CA 90505
Robert Smith (310) 518-1845
Meet: VFW Hall, 1865 Lomita Blvd., Lomita, CA (near Long Beach)
Day: 2nd Tue. Time: 7:30PM
Dues: $20/yr
CPU: Atari 8-bit, ST/Mega/TT and Portfolio
Misc: SBACE Gazette newsletter.

SCCAUG
5222 Carryback Ave.
San Jose, CA 95111-2801
Ron Reade (408) 225-7162
Meet: San Jose Computer Showroom, Alma Court
Day: 2nd Wed. Time: 7PM
Dues: $15/yr
CPU: Atari 8-bit, ST/Mega/TT and Portfolio
BBS: SCCAUG (408) 971-9212
Misc: MIDI demos are held twice yearly.

SDACE
PO Box 900076
San Diego, CA 92190
Dan Phillips (619) 462-1289
Meet: General: North Park Recreation Center Social Room, 4044 Idaho St. ST/8-bit Workshops: North Park Adult Center, 2719 Howard St.
Day: Gen.: 3rd Mon., Workshops: 1st Thu. Time: 7PM
Dues: $18/yr
CPU: Atari 8-bit and ST/Mega/TT
BBS: (619) 689-8157
Misc: SDACE newsletter, increased BBS access

SLCC
PO Box 1506
San Leandro, CA 94577-0374
Bob Woolley (415) 865-1672
Meet: San Leandro Community Library, 300 Estudillo Ave.
Day: Main: 1st Tue., ST: 2nd Mon. Time: 8PM
Dues: $20/yr
CPU: Atari 8-bit and ST/Mega/TT
BBS: Key System (415) 352-5528
Misc: SLCC Journal, access to print and PD/Shareware disk libraries.

SST
PO Box 214892
Sacramento, CA 95821
Mark Warner (916) 344-8320
Meet: Pac Bell Auditorium, 2700 Watt Ave.
Day: 2nd Wed. Time: 7PM
Dues: $24/yr
CPU: ST/Mega/TT
BBS: ST-Keep (916) 331-6153, (916) 729-2968
Misc: Club newsletter, free raffle ticket at each general meeting, membership disk

ST ACE Sonoma
PO Box 4916
Santa Rosa, CA 95402
John Orcutt (707) 526-2544
Meet: Santa Rosa Baptist Church, 3884 Sebastopol Rd.
Day: 3rd Thur. Time: 7:30PM
Dues: $20/yr
CPU: Atari ST/Mega/TT

SVACE
672 E. Romie Lane
Salinas, CA 93901
Gary Klugman (408) 758-4894
Meet: Salinas Community Center
Day: 1st Tue. Time: 7:30PM
Dues: $12/yr
CPU: ST/Mega/TT
BBS: BitStream (408) 449-2150
Misc: Raffles, free disk of the month

TEAC
PO Box 1024
Laytonville, CA 95454
Pete Loeser (707) 984-8048
Meet: Operates by mail, members are spread all over the world.
Day:
Dues: US: $25/yr, Foreign: Inquire
CPU: Atari 8-bit and ST/Mega/TT
Misc: TEAC newsletter. 8-bit and ST educational disk library.

YAC
1129 Fordham Dr.
Davis, CA 95616-0926
Eric Hays (916) 756-5486
Meet: Call or write for meeting time/place
Dues: $8/yr
BBS: STeve's (916) 661-1538
Misc: PD library access, Yackity-YAC newsletter.

Colorado

ACCD
5407 W. 4th Ave.
Lakewood, CO 80226
Guy McDaniels (303) 238-2366
Meet: ACD/STIG: Aurora Public Library, 14949 E. Alameda Ave. STarfleet: Pamona HS, 8101 W. Pamona Dr.
Day: ACD: 1st Tue.; STarfleet: 2nd Fri.; STIG: 3rd Tue. Time: 7:00 PM
CPU: Atari 8-bit and ST/Mega/TT
BBS: (303) 343-2956
Misc: ACCD is an umbrella group for ACD, Starfleet and STIG.

P3ACE
PO Box 17779
Colorado Springs, CO 80935-7779
Steve Leser (719) 576-3357
Meet: T.J. Maxx Center at Rustic Hills
Day: 8-bit: 1st Tue., ST: 4th Thu. Time: 7-9PM
Dues: $20/yr family
CPU: Atari 8-bit and ST/Mega/TT
BBS: Laser (719) 527-1374
Misc: Club has a Hayes 300 baud and Atari SX-212 1200 baud modem for loan to members. AtariUser and AIM ST and 8-bit Disks available at each meeting.

Connecticut

CCCC
127 Pinnacle Rd.
Bristol, CT 06010
Rich Scheidel (203) 589-3738
Meet: 127 Pinnacle Rd., Bristol, CT.
Day: 3rd Wed. Time: 7:30PM
Dues: $25/yr normal, $30/yr family
CPU: Atari 8-bit, ST/Mega/TT and Portfolio

STARR
15 John St.

Ansonia, CT 06401
Madelon Wilson (203) 735-6711
Meet: Greater New Haven State Tech. College, 88 Bassett Rd., North Haven, CT.
Day: 3rd Thu. (exc. Aug.)
Dues: $20/yr
CPU: ST/Mega/TT
BBS: (203) 421-4861

Delaware

CDACC
3117 Walnut St.
Dover, DE 19901
CPU: Atari 8-bit and ST/Mega/TT

Florida

ABLE
PO Box 1172
Winter Park, FL 32790
Hadley Nelson (407) 671-0317
Meet: Orlando Public Library, Palm Magnolio Room 101 E. Central Blvd., Orlando FL
Day: Last Sun. Time: 1:30-4:30PM
Dues: $12
CPU: Atari 8-bit and ST/Mega/TT
Misc: Access to the ABLE Program Library of User Software (ABLE PLUS) and ABLE AID newsletter.

PACE
2439 Moorehaven Drive East
Clearwater, FL 34623-1615
Alan Frazer (813) 791-0912
CPU: Atari 8-bit
BBS: Tut's (813) 797-8449

STARgroup
2312 Ironstone Dr. E.
Jacksonville, FL 32216
S. Michael Hallack (904) 646-0567
Meet: La Miranda Apartments off Powers Ave., Jacksonville, FL.
Day: 1st & 3rd Tue.
Dues: $15/yr
CPU: ST/Mega/TT, Macintosh and Portfolio
BBS: Lief's World (904) 573-0734
Misc: Free PD/Shareware disk library access, quarterly newsletter.

TBAA
5918 Otis Ave.
Tampa, FL 33604
Butch James (813) 237-4306
Meet: East Bay Library, East Lake Square Mall
Day: 2nd Wed. Time: 7PM
Dues: $10/yr
CPU: Atari 8-bit and ST/Mega/TT
Misc: Monthly classes in software and peripherals

Georgia

MGAUG
Rt. 1 Box 362M4 Carl Sutton Rd
Lizella, GA 31052
Jeff Vincent (912) 836-3852
Meet: Tattnall Square Academy, Macon, GA.
Day: 2nd Sun. Time: 2PM
Dues: $30/yr and $4/year optional newsletter
CPU: ST/Mega/TT
Misc: Club library use is free to all paid members. AtariUser. Participates in annual show at local mall.

STAR
3069 N. Brook Rd.
Chamblee, GA 30341
Rick Ostapower (404) 487-4845
Day: 3rd Mon.
Dues: $30/yr
CPU: ST/Mega/TT

Illinois

CUSTUG
PO Box 3442
Champaign, IL 61826-3442
Lee Johnson (217) 356-7916
Meet: Urbana Free Library Auditorium, corner of Elm and Race, Urbana, IL.
Day: 2nd Wed. Time: 7PM
Dues: $16/yr
CPU: ST/Mega/TT
Misc: AtariUser magazine, PD library access, December MIDI concert/demo.

EAUG
2425 Crislisa Dr.
Alton, IL 62002
Hank Vize (618) 465-0342
Meet: Alton Square Mall Community Room, Alton, IL.
Day: 1st Mon. Time: 7PM
Dues: $18/yr newsletter membership
CPU: Atari 8-bit and ST/Mega/TT
BBS: Eastside (618) 254-6077, Garage (618) 344-8466
Misc: EAUG-Log club newsletter Member of Midwest Atari Regional Coucil consortium

GAUG
55 Herring St.
Galesburg, IL 61401
Russ Watson (309) 343-6609
Meet: Community Center on Simmons St. in Galesburg, one block sourth of downtown.
Day: 2nd Mon. Time: 7PM
Dues: $10/yr family, $5/yr student
CPU: Atari 8-bit and ST

LCACE
PO Box 8788
Waukegan, IL 60079-8788
Mike Brown (708) 336-1128
Meet: Warren-Newport Public Library, 244 O'Plain Rd., Gurnee, IL.
Day: 2nd Sat. Time: 11AM-3PM
Dues: $20/yr
CPU: Atari 8-bit and ST/Mega/TT
BBS: Python (9600) (708) 680-5105, Pegasus (708) 623-9570
Misc: Sponsored Midwest AtariFest (Apr. '90), ChicagoFest (Nov. '90) and the recent ChicagoFest by Atari (Nov. '91).

RACC
5430 N. 2nd St.
Loves Park, IL 61111
Cal Schafer (815) 633-1259
Meet: Springbrook Congregational Church, off Alpine just as you make the turn onto Springbrook Rd. from Spring Creek Rd., Rockford, IL.
Day: 3rd Sat. Time: 9AM-Noon
CPU: Atari 8-bit and ST/Mega/TT
BBS: (815) 226-2388

SCAT
PO Box 72266
Roselle, IL 60172
Meet: College of Dupage, Student Resource Center on Lambert Rd. between Roosevelt and Butterfield, Glen Ellyn, IL.
Day: 1st Sat. (check BBS) Time: 10AM
Dues: $20/yr family
CPU: Atari 8-bit and ST/Mega/TT
BBS: SCAT (708) 231-7227

STAR
337 N. 43rd St.
Belleville, IL 62223
Craig Carter (618) 233-6675
Meet: Illinois Power Bldg., 1050 West Blvd., Belleville, IL
Day: Last Mon. (exc. December) Time: 7PM
Dues: $15/yr
CPU: ST/Mega/TT

Indiana

ACORN
3627 Iowa Court
Fort Wayne, IN 46815
Bob Kelley
Meet: Shawnee Branch of the Allen County Public Library
Day: 1st Sat. Time: 10AM-1PM
Dues: $18
CPU: Atari 8-bit and ST/Mega/TT
BBS: (219) 744-1396
Misc: Three Rivers Festival, PentaCon, ICE Kid's Conference Participant.

CRAG
PO Box 10995
Merrillville, IN 46411
Randy Noak (219) 663-6912
Meet: Broadway Music, Greentree Plaza, 1509 W. 81st (US-30), Merrillville, IN.
Day: 2nd Wed. Time: 7PM
Dues: $15/yr
CPU: ST/Mega/TT
Misc: ST disks $2.50 each for members, $4 non-members

Kansas

FLAG
PO Box 3233
Fort Leavenworth, KS 66021
Jeff Yoe (913) 682-2883
CPU: Atari 8-bit and ST/Mega/TT

Kentucky

AEL
PO Box 34183
Louisville, KY 40232
Lawrence Estep (812) 944-8997
Meet: Central Jefferson County Government Center, 7201 Outer Loop
Day: 2nd Sat., 8bit SIG: 1st Wed., ST SIG: 4th Wed. Time: 11:30AM/SIGS: 7:30PM
Dues: $20/yr per family
CPU: Atari 8-bit and ST/Mega/TT
BBS: Atari Scene! (502) 456-4292
Misc: Members subscribe to AELien Transmissions newsletter (6 issues) for $1.74/yr.

BRACE
3209-B Baird Ct.
Lexington, KY 40515
Hal Nason (606) 269-8989
Meet: Lexington Free Public Library, Downtown Branch
Day: 3rd Tue. Time: 7-9PM
Dues: $15/indiv., $20/family, $10/assoc.
CPU: Atari 8-bit and ST/Mega/TT
Misc: Associate membership includes AIM but not library access.

Louisiana

CASTE
314 W. Claude St.
Lake Charles, LA 70605
Tim Bowles (318) 477-3243
Meet: College Park Nazarene Church, 340 E. Prien Lake Rd., Lake Charles, LA
Day: Last Sat. Time: 1PM
Dues: $15/yr
CPU: ST/Mega/TT
BBS: General Store (14.4K)(318) 855-6939

Massachusettes

WMAUG
285 Gates St.
Palmer, MA 01069
David Scarpa (413) 283-4171
Meet: Chicopee Public Library Main Branch, Front St., Chicopee, MA
Day: 1st Wed. Time: 7PM
Dues: $20/yr
CPU: Atari 8-bit, ST/Mega/TT and Portfolio
BBS: WMAUG Junction (413) 283-4967

Michigan

CACE
PO Box 6161
Jackson, MI 49204
CPU: Atari 8-bit, ST/Mega/TT and IBM

GAG
PO Box E
Flint, MI 48507
Jerry Cross (313) 736-4544
Meet: GMI Institute Rm 817A, corner of Chevrolet and 3rd Ave, Flint, MI
Day: 2nd Wed. Time: 6:30PM
Dues: $15/yr
CPU: Atari 8-bit and ST/Mega/TT
BBS: FACTS (9600) (313) 736-3920, Carnival (313) 235-0158, Nine Planes (313) 233-6095
Misc: Helped sponsor 1987 MAGIC show and 1989 WOA Detroit show

GLASS
PO Box 99737
Troy, MI 48099
Byron Johnson (313) 758-2741
Meet: Troy-Athens High School, 2 blocks north of Wattles on John R Rd.
Day: 1st Thur. Time: 7PM
Dues: $20/yr
CPU: Atari ST/Mega/TT

GRASS
624 Dickinson SE
Grand Rapids, MI 49507
Meet: Wyoming Public Library, 3350 Michael S.W., Grand Rapids, MI.

Day: 1st Wed. Time: 7PM
Dues: $22/yr
CPU: Atari 8-bit

MACE
PO Box 2785
Southfield, MI 48037
Meet: Southfield Civic Center, Room 115, at 10-1/2 Mile and Evergreen, 1/2 mile south of the Evergreen exit on I-696.
Day: 3rd Tue. Time: 7:30PM
Dues: $20/yr
CPU: Atari 8-bit and ST/Mega/TT
Misc: Send $2 for current ST or 8-bit disk catalog.

SALSA
PO Box 1342
Sault Ste. Marie, MI 49783
Roger Aube (705) 759-3922

STAG
4765 N. Eastman Rd.
Midland, MI 48640
Bryant LaFreniere (517) 835-2234
Meet: Rudy Zauel Memorial Library, corner of Center and Shattuck in Saginaw Township.
Day: 2nd Sat. Time: 9AM
Dues: $20/yr
CPU: Atari 8-bit and ST/Mega/TT
Misc: Free PD disk with membership/renewal, PD disks are $3 or 2 for $5. Participates in Community Fair at Fashion Square Mall each January

STING
PO Box 321
Marne, MI 49435-0321
Donna Meyer (616) 942-5167
Meet: Plainfield Township Library, 2650 5 Mile Rd NE, 1/2 mile east of N. Kent Mall.
Day: 2nd Wed. Time: 6:30-9PM
Dues: $15/yr
CPU: Atari ST/Mega/TT
BBS: STING (616) 532-5736

WAUG
14 Payeur
Ann Arbor, MI 48108
Dave Brzezinski (313) 971-3927
Meet: Michigan Student Union on State St. at the corner of S. University in Ann Arbor.
Day: 2nd Tue. Time: 7:30PM
Dues: $15/yr
CPU: Atari 8-bit, ST/Mega/TT, Macintosh and Portfolio
BBS: MOlin's Den (313) 451-0524
Misc: Monthly 8-bit and ST raffle, free ticket for members, SX212 modem available for loan.

Minnesota

PACE
4835 Crosley Ave.
Duluth, MN 55804-1219
Tracy Hendershot (218) 525-1058
Meet: Duluth Radisson Hotel, check local BBSes for exact location. Meetings are bi-monthly (Jan, Mar, May, Jul, Sept. and Nov.).
Day: 3rd Sun. Time: 1:30PM
Dues: $30/yr.
CPU: Atari 8-bit and ST/Mega/TT
Misc: Newsletter, free ST/8-bit disk, free printer ribbon reinking, free copying of ST/8-bit PD libraries.

Missouri

ACE of SL
PO Box 3508
St. Louis, MO 63143
Nick Barr (314) 741-1505
Meet: Thornhill Branch of St. Louis County Library, Fee Fee and Willowick, Maryland Heights, MO.
Day: Date and time varies
CPU: Atari 8-bit and ST/Mega/TT
Misc: Club newsletter. Member of MARC.

KCAC
1107 W. 88th St.
Kansas City, MO 64114
Gary Leach (913) 236-9643
CPU: ST/Mega/TT

Montana

RACE
Box 364
Frenchtown, MT 59834
Tom Tucker (406) 626-4410
Meet: National Guard Armory, 2501 Reserve St., Missoula, MT.
Day: 3rd Sun. Time: 7PM
Dues: $16/year
CPU: Atari 8-bit and ST/Mega/TT
Misc: Membership includes free PD disk.

North Carolina

RACE
4360 Hunters Club Dr.
Raleigh, NC 27606
Lewis Midyette (919) 828-4319
Meet: Announced on Galaxy BBS, look under Bulletins for "A word from the president of RACE"
CPU: Atari 8-bit and ST/Mega/TT
BBS: Galaxy (919) 552-0974

North Dakota
MACUG
129-2 Sirocco Dr.
Minot AFB, ND 58704

Nebraska

O-ACES
PO Box 723
Papillion, NE 68046
Pete Killian (402) 592-5427
Meet: La Vista Recreation Center, 8116 Parkview Blvd. (just off 84th St., south of Food-4-Less and east of 84th at the light.)
Day: 2nd and Last Wed. (exc. Nov. & Dec.) Time: 7:30PM
CPU: Atari 8-bit and ST/Mega/TT

New Jersey

JACS
PO Box 710
Clementon, NJ 08021
Mike Hopkins (609) 783-1423
Meet: Camden County Library
Day: 3rd Tue. Time: 7-9PM
Dues: $24/yr (August renewal)
CPU: Atari 8-bit and ST/Mega/TT
BBS: (609) 346-1224
Misc: Between Bytes newsletter, AtariUser available at meetings Send SASE (business size) for copy of current ST or 8-bit disk catalog.

New Mexico

AACE
1021 Sagebrush Trail SE
Albuquerque, NM 87123
Richard Houser (505) 299-3977
Meet: Gas Company of New Mexico. 4625 Edith Blvd, Albuquerque.
Day: Gen: 1st Sat and 3rd Tue., 8bit: 2nd Tue.
Dues: $20/yr payable in January
CPU: Atari 8-bit and ST/Mega/TT
BBS: Astro (505) 260-0448
Misc: PD library access, BBS membership. Swap meet on 1st Sat. of June and December.

Nevada

HISUG
PO Box 2152
Sparks, NV 89432
Gary Marston (702) 885-2081
Meet: Round Table Pizza, Baring Village, 1201 Baring Blvd., Sparks, NV.
Day: 3rd Thur. Time: 7PM
Dues: $20/yr
CPU: Atari 8-bit and ST/Mega/TT
BBS: UNreliable (702) 358-6307

SNACC
48 Lafaette St.
Las Vegas, NV 89110
Harvey Cannon (702) 459-4089
Meet: Winchester Center, 3130 Mcleod
Day: 1st Thur. Time: 7-9PM
CPU: Atari 8-bit, ST/Mega/TT and Portfolio
BBS: SNACC (702) 438-2208

New York

ACORN
PO Box 24920
Rochester, NY 14624
Don Allis (716) 293-3415
Meet: Brighton HS, 1150 Winton Rd. South, Room 262S.
Day: 2nd Wed. Time: 7PM
Dues: $20/yr (add $6 for AIM)
CPU: Atari 8-bit and ST/Mega/TT
BBS: Dimension's End (716) 436-3078
Misc: ACORN Kernel newsletter, AtariUser, extra BBS access. ST Beginners and 8-bit Basically Speaking classes held before general meeting.

BRAG*ST
PO Box 1035
Buffalo, NY 14225
Mark Pierro (716) 691-7844
Meet: Erie Community College, North Campus, Room S-105 in the Student Center.
Day: 3rd Thu. Time: 7:30PM
CPU: ST/Mega/TT
Misc: Monthly raffle. Board of Directors, 1st Thurs. at Your Host Restaurant, Harlem at Sheridan, 7PM.

CDACE
PO Box 1910
Schenectady, NY 12301
Bob Thompson (518) 439-5356
Meet: Computer Cellar in the Westgate Plaza, Albany, NY.
Day: ST: Last Wed., XL/XE: Qtrly. Time: 6:30PM
Dues: $20/year
CPU: Atari 8-bit and ST/Mega/TT
Misc: ST disks $2, free XL/XE library access.

LIAUG
PO Box 92
Islip, NY 11751
John Aalto (516) 589-6754
Meet: Nesconset branch of the Smithtown Library, Nesconset, NY.
Day: 1st Sat.
Dues: $20/yr
CPU: Atari 8-bit, ST/Mega/TT, Portfolio and Lynx
BBS: New Nest (516) 234-4943, Star Scan (516) 399-4252

OHAUG
3376 Ocean Harbor Dr.
Oceanside, NY 11572
Alex Pignato (516) 678-6081
Meet: Plainview-Old Bethpage Library, 999 Old Country Rd. in Plainview
Day: Usually 2nd Sat.
Dues: $24/yr
CPU: Atari 8-bit ONLY!
Misc: Charter member of NEAR*US user group consortium.

WNYAUG
PO Box 59
Buffalo, NY 14216
Mike Husband (716) 825-8486
Meet: Room 116E, Bacon Hall, State University College of Buffalo, 1300 Elmwood Ave.
Day: 1st Thu. Time: 7:30PM
Dues: $15/yr new, $12/yr renewal
CPU: Atari 8-bit
BBS: Wizard's Attic (716) 681-1654
Misc: POKEY newsletter disk

Ohio

ACCT
4487 289th
Toledo, OH 42611
Dave & Brenda Micka (419) 729-1891
Meet: Dave & Brenda Micka's home.
Day: 1st Wed. Time: 7-9PM
CPU: Atari 8-bit and ST/Mega/TT
BBS: Disk Drive-Thru (419) 885-3441
Misc: Disks $2 8-bit, $4 ST

ACEC
1287 Dennison Ave.
Columbus, OH 43201

CVACC
PO Box 9173
Akron, OH 44305
Don Crano (216) 376-7618
Meet: First National Bank, Mogadore, OH.
Day: 2nd & 4th Tue. Time: 7:30PM
Dues: $20 family
CPU: Atari 8-bit and Mega/ST/TT
Misc: Discounts at local computer stores, club

newsletter The Password

MAUG
PO Box 134
Ontario, OH 44862
Chuck Steinman (419) 529-2478 after 5PM
Meet: A&B Computers, 1151 Park Ave. W., West Park Shopping Center, Mansfield, OH.
Day: 3rd Sat. (exc. July) Time: 7-9PM
Dues: $12/yr
CPU: Atari 8-bit and ST/Mega/TT
BBS: DataQue (419) 529-5197
Misc: Members can access AIM ST and 8-bit disk files on the BBS. AtariUser available free to members at A&B. Back issues of AtariUser available for $1 each.

MVACE
PO Box 24221
Huber Heights, OH 45424
Dan Steffen (513) 832-0749
Meet: Jaycees Clubhouse
Day: 2nd & 3rd Sat. Time: 9:30 to Noon
Dues: $20/yr, $12 for students or newsletter only
CPU: Atari 8-bit and ST/Mega/TT
BBS: ACE (513) 233-9500

NASAC
1810 Cheviot Hill Dr.
Springfield, OH 45505-3508
Meet: Vandalia Elementary School, Room #2, 333 Bohanan Dr., Vandalia, OH 45377.
Day: 2nd Thu. Time: 7:30PM
Dues: $12/yr
CPU: Atari 8-bit, ST/Mega/TT and IBM
Misc: Monthly newsletter "The NAS-HACKER."

STANCE
1174 Larkspur Dr.
Lyndhurst, OH 44124
Joseph Adato (216) 449-6881
Meet: B&G Electronics, 15729 Madison Ave., Lakewood, OH.
Day: 3rd Mon. Time: 7:15PM
Dues: $12/yr with one time sign up fee of $13
CPU: ST/Mega/TT

Oklahoma

TACE
16564 SE 18th
Choctaw, OK 73020
Ron Hamilton (405) 387-5649
Meet: Moore Public Library, 225 S. Howard, just off SW 4th and I-35, Moore, OK.
Day: 1st Sat. Time: 1PM
Dues: $15 family, $7 correspondence (July renewal)
CPU: Atari 8-bit and ST/Mega/TT
BBS: TACE (405) 366-1977
Misc: Will mail copies of AtariUser magazine to individuals for approx. $1 per issue.

Oregon

ACUNET
2662 E. Nob Hill Dr. SE
Salem, OR 97302
Ron Purdy (503) 588-7509
Day: 4th Tue. Time: 7PM
Dues: $15 with AIM, $10 without
CPU: Atari 8-bit and ST/Mega/TT
BBS: Salem Public Lib. (503) 588-6130, Page (503) 363-0171, The Jungle (503) 393-4274.

COAC
PO Box 6824
Bend, OR 97708
Aaron Leis (503) 388-7516
Meet: Ann Rita Conference Center (in front of the St. Charles Hospital on Neff Rd.), Bend, OR.
Day: 1st Sat. Time: 5PM
Dues: $20/yr new, $17/yr renewal, $1/yr for each additional family member.
CPU: Atari 8-bit and ST/Mega/TT

DCASTE
1033 Barager
Roseburg, OR 97470
Jim Steingrobe (503) 673-1687

PAC
PO Box 1692
Beaverton, OR 97005
David Hunt (503) 286-6276
CPU: Atari 8-bit and ST/Mega/TT
BBS: ACE of America (503) 285-4417

Pennsylvania

NAPCO
642 E. Waring Ave.
State College, PA 16801
Greg Brown (814) 238-4255
CPU: Atari 8-bit and ST/Mega/TT

PACS Atari 8bit
Box 312, LaSalle Univ.
Philadelphia, PA 19141
Meet: Drexel University, Room M11B, Matherson Blvd., 32nd and Market St., Phil., PA.
Day: 3rd Sat.
Dues: $25/year with an additional $2 for new members.
CPU: Atari 8-bit
BBS: (215) 942-9600 to 9604 (9603/4 for 300 baud)
Misc: The DataBus newsletter, AtariUser

SAGE
PO Box 10562
Erie, PA 16514-0562
Dennis McGuire (814) 833-4724
Meet: St. John's Lutheran Church, Erie, PA.
Day: 3rd Sun. Time: 2PM
CPU: Atari 8-bit and ST/Mega/TT

SPACE
PO Box 11446
Harrisburg, PA 17108
John Slade (717) 938-3656
Meet: Camp Hill Mall Community Room
Day: 3rd Mon. Time: 7:30PM
Dues: $15/yr
CPU: Atari 8-bit and ST/Mega/TT
Misc: SPACE Probes newsletter

WACO
230 Clairmont St.
North Huntingdon, PA 15642
Patty Marshall (412) 225-8637
Meet: North Huntingdown Town House, near Irwin, PA.
Day: 2nd Tue.
Dues: $24 family
CPU: Atari 8-bit, ST/Mega/TT, Mac, IBM and Portfolio
Misc: Huge foreign PD libraries. Participates in many Atarifests in the northeast.

South Dakota

RACE
9512-A Adams
Ellsworth AFB, SD 57706
Rick Burton (605) 642-5353
Meet: Rapid City Public Library
Day: 4th Sat. Time: 2PM
Dues: $12 basic, $15 newsletter
CPU: Atari 8-bit and ST/Mega/TT

Tennessee

CACE
280 Capshaw Drive
Cookeville, TN 38501
Dan Hale (615) 526-8002
Meet: Putnam County Library, Cookeville, TN.
Day: 1st Sat. Time: 1PM
Dues: $10
CPU: Atari 8-bit and ST/Mega/TT
BBS: Generic BBS (615) 432-5809

MASH
3265 Austin Peay Hwy.
Memphis, TN 38128
Randy McKinna (901) 388-3384
Meet: State Technical Institute in the Fulton Auditorium.
Day: 2nd Mon. Time: 7PM
Dues: $24/yr (renewal in July)
CPU: Atari 8-bit and ST/Mega/TT
BBS: MASH COM (901) 377-1904

NAUG
PO Box 121752
Nashville, TN 37221
Walt Sullivan (615) 228-7353
Meet: Cumberland Museum and Science Center
Day: 3rd Thu. Time: 7-10PM
Dues: $24/yr full; $12/yr associate
CPU: Atari 8-bit and ST/Mega/TT
BBS: Nashville Exchange (9600) (615) 383-0727, Troll's Cave (615) 872-0757

Texas

AAAUA
PO Box 79-1426
San Antonio, TX 78279
Al Sherrill (512) 492-6633
Meet: Balcones Heights Community Center, 107 Glenarm, San Antonio, TX. 107 Glenarm, San Antonio
Day: 1st Tue. Time: 6:30-9:30PM
Dues: $24; Subscribing: US-$16, CAN/MEX-$36 ($14 no AIM), Other-$54 ($18 no AIM)
CPU: Atari 8-bit
Misc: Library of around 700 disks. (FR)ANTIC monthly newsletter. Swap meet and computer workshop each 3rd meeting.

AACE
1601 Larkwood Dr.
Austin, TX 78723
Eve Kuniansky (512) 323-2016
Meet: Library. Pizza buffet 1st Thursday of each month 6:30-8PM.
Day: 2nd Sat. Time: 2-5PM
Dues: $24/yr Jan-Dec
CPU: Atari 8-bit, ST/Mega/TT, Portfolio and Lynx
Misc: Newsletter, C classes, library access.

ACCEPT
245 Longhorn Court
El Paso, TX 79907-5215
Steve Bruck (915) 858-1117
Dues: $20
CPU: Supports Atari 8-bit, ST/Mega/TT, Macintosh and IBM
BBS: STEP (915) 755-STEP; STE-EP (915) 821-9220
Misc: Discounts from Jenkins' Computers, special STE-EP access.

GTAUG
6621 Capitol St.
Groves, TX 77619
Ray St Cyr (409) 727-7215
Day: Usually 2nd Tue.
Dues: $24/yr (Sept. renewal)
CPU: Atari 8-bit, ST/Mega/TT, Macintosh
BBS: (409) 722-6526

HACE
PO Box 460212
Houston, TX 77056
Bill Kithas (713) 855-0815
Meet: Health Economics Corp., 2400 West Loop S., Houston, TX.
Day: 4th Wed. Time: 6:45PM
Dues: $22/year
CPU: Atari 8-bit, ST/Mega/TT
BBS: (713) 458-9923
Misc: UPDATE ATARI newsletter, store discounts, door prizes, workshops.

HASTE
4930 Shadowdale
Houston, TX 77041
Phillip Stojankik (713) 896-9131
Meet: Megabyte Plus, 5181 FM1960W, Houston, TX 77069.
Day: Last Sat. Time: 10:30AM
Dues: $20/yr
CPU: ST/Mega/TT and Portfolio
BBS: HASTE (713) 921-0550
Misc: Hosts the annual Atari Safari show.

SALSA
PO Box 18731
San Antonio, TX 78218-0731
Tim Hebel (512) 656-5315
Meet: Balcones Heights Community Center, 710 Glenarm, San Antonio, TX.
Day: 2nd Tue. Time: 7-10PM
Dues: $20 w/AIM, $15 regular
CPU: ST/Mega/TT
Misc: Club newsletter, discounts, Disk of the Month for $2, New user classes.

Utah

LACE
3897 S. 2275 W.
Roy, UT 84067-3515
Irwin Brooks (801) 731-1516
Meet: Clearfield Library basement, Roy, UT.
Day: 2nd Wed. Time: 7PM

Dues: $20/yr
CPU: Atari 8-bit and ST/Mega/TT

STUN
PO Box 27285
Salt Lake City, UT 84127
Randy Larsen (801) 967-0209
Meet: Murry High School
Day: 3rd Wed. Time: 7PM
CPU: ST/Mega/TT
BBS: The Bolt (801) 968-3921

Washington

CACUG
Box 767
Chewelah, WA 99109
CPU: Atari 8-bit and ST/Mega/TT

FACCS
PO Box 5121
Spokane, WA 99205
Tim Osborne (509) 624-1917
Meet: Eager Beaver Computers, next to the Garland Theatre, Spokane, WA.
Day: 2nd Thu. Time: 7PM
Dues: $15/yr family
CPU: Atari 8-bit and ST/Mega/TT

Starbase
8307 27th NW
Seattle, WA 98117
Steve Drake (206) 782-3691
Meet: Mountlake Terrace Library, 23300 58th Ave West, Mountlake Terrace, WA.
Day: 2nd Fri. Time: 6PM
Dues: $18/yr
CPU: Atari 8-bit and ST/Mega/TT

SWAG
PO Box 1515
Vancouver, WA 98668
Gary Lentz (206) 573-8224
Meet: Clark County Fire District #5, Station 3 on 213 NE 120th, Vancouver, WA.
Day: Last Sun. (exc. July) Time: 6:30PM
Dues: $12/yr
CPU: Atari 8-bit and ST/Mega/TT
BBS: Bear Cavern (206) 574-1146

Wisconsin

MilAtari
PO Box 14038
West Allis, WI 53214
Lee Musial (414) 466-7557
Meet: Greenfield Park Lutheran Church, 1236 S. 115th St.
Day: 3rd Sat. Time: Noon
Dues: $22/yr
CPU: Atari 8-bit and ST/Mega/TT
Misc: MilAtari hosts the Computer Gaming area at GEN-Con each year.

Canada—Ontario

KAUG
153 Oxley Dr.
Chatham, Ontario N7L 4R3 CANADA
Channel One Computers (519) 351-0760
Meet: North Maple Village Mall on Highway #40, just north of Chatham.
Day: 4th Tue., Sept-May
Dues: $20/yr
CPU: Atari 8-bit and ST/Mega/TT
BBS: KAUG BBS (519) 351-3901

NCAUG
15 Blueridge Court
Nepean, Ontario K2J 2J3 CANADA
Hardy Zeltins (613) 825-4196
CPU: Atari 8-bit, ST/Mega/TT, Macintosh

TASTE
185 Varsity Row
Thunder Bay, Ontario P7B 5P2 CANADA
Dues: $25/yr Canadian
CPU: ST/Mega/TT

WAUG
3199 McKay Ave.
Windsor, Ontario N9E 2R4 CANADA
Brian Cassidy (519) 966-0305
Meet: Roseville Gardens Community Centre, 4200 Roseville Garden Dr., Windsor, Ontario, Canada.
Day: 3rd Thu. Sept-June, exc. Dec. (2nd Thu.) Time: 7:30PM
Dues: $25 Canadian
CPU: Atari 8-bit and ST/Mega/TT

Canada—Quebec

ASTMUM
PO Box 966, Station B
Montreal, PQ H3B 3K5 CANADA
Kest Carter-Morgan (514) 272-6631
CPU: ST/Mega/TT, MIDI Specialists
Misc: Emergency repair, laser printing & graphics services, discounts on computer and MIDI equipment, Audio Recording & Music Tech course discounts and MUCH MORE!

MACAM
PO Box 5418
St. Laurent, PQ H4L 4Z9 CANADA
Terry Cowen (514) 696-3773
Meet: Monkland Recreational Centre, 4410 West Hill, N.D.G., Montreal, Quebec.
Day: 8-bit: 1st Thu., ST: 3rd Thu.
Dues: $25 8-bit, $30 ST, $35 both (Canadian)
CPU: Atari 8-bit, ST/Mega/TT and Portfolio
BBS: Enchanted Realm (514) 366-4556
Misc: Disk-based newsletter, free AIM disk access, AtariUser magazine

England

BaPAUG
248 Wimborne, Oakdale
Poole, Dorset BH1S 3EF ENGLAND
Day: 1st Fri. Time: 7:30PM
CPU: Atari 8-bit and ST/Mega/TT
Misc: 8:16 Newsletter

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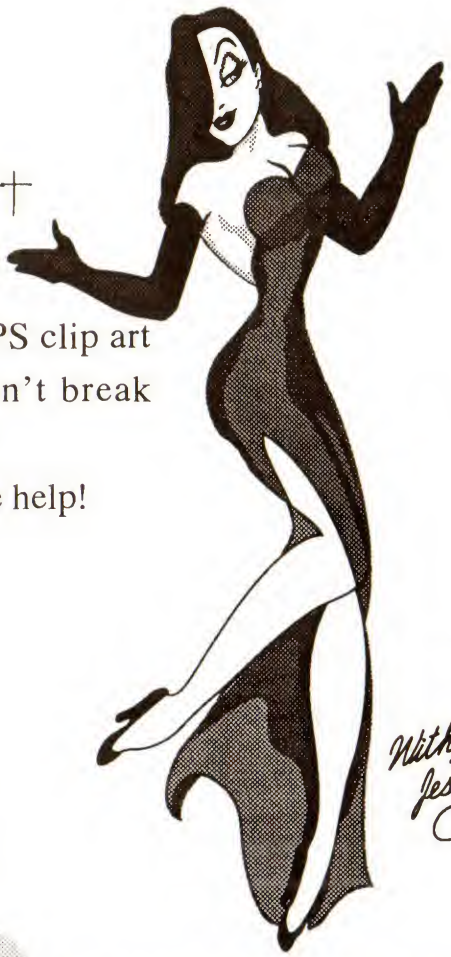

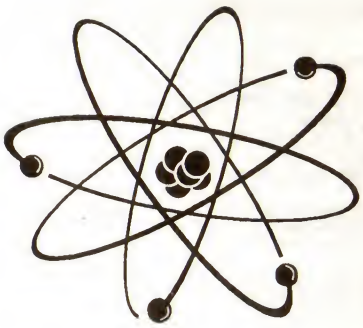

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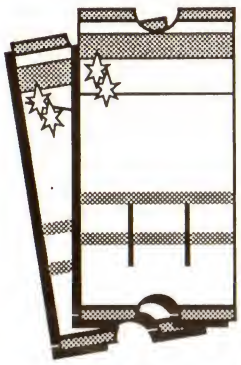

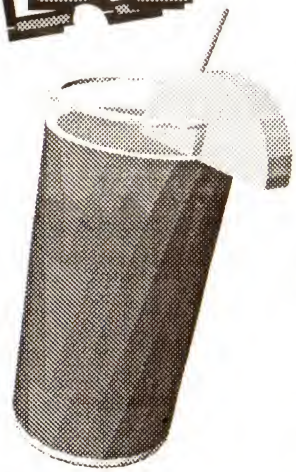

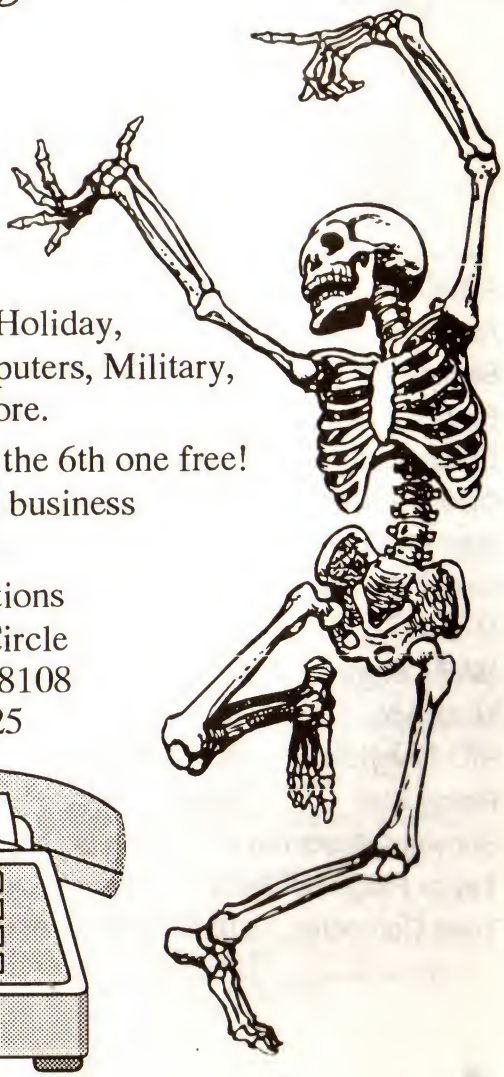

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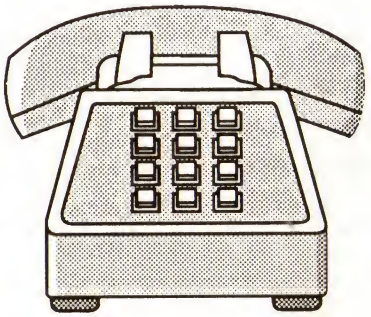

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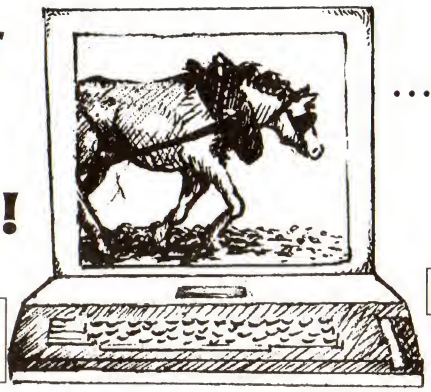

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Power Products for your XF551

$99.95 THE XF SINGLE DRIVE UPGRADE $99.95

Double the storage capacity of your XF551 with our 3.5" 720k **single drive upgrade!** Included with the upgrade is a Sony 3.5" disk drive in a 5.25" faceplate that perfectly replaces the existing 5.25" drive. The 3.5" drives are newer technology, more reliable, and easier to handle. Do NOT confuse this with public domain upgrades! The completely re-written drive OS adds these features:

- **Fixes incompatibilities** with commercial software
- **Eliminates** density **reconfiguring problems**
- Switches to second side without reconfiguring
- **Ultra Speed** I/O compatible
- Very **high speed** sector skew in US mode
- Capable of reading **IBM** and/or **ST** disks
- Compatible with 40 OR 80 track drives

Included with the upgrade is a utility program capable of reading IBM and/or ST disks, so you can import text or binary files to your 8-bit (text conversion routines are included). Minimal soldering is required; but we provide free installation for any of our products! Only $99.95 plus $8 S/H/I. If you already have a 3.5" drive, you may obtain the single drive upgrade without the Sony drive for $59.95 plus $5 S/H/I.

$139.95 THE XF DUAL DRIVE UPGRADE $139.95

Our XF Dual drive upgrade allows you to **add** a 3.5" drive to your XF551, while keeping the 5.25" mechanism. This is a totally **switchless** upgrade that turns your XF into two disk drives! The added 3.5" drive assumes the next drive number higher than the 5.25" and is totally independent, so you can copy between drives, even mixing densities! This product has all of the features of the above single drive upgrade, available for **both** drives! Complete with Sony 3.5" drive, only $139.95 plus $8 S/H/I. The upgrade without the drive is $79.95 plus $5 S/H/I. A special version to handle dual 3.5" mechanisms is available for an additional $20.

THE FLOPPY BOARD $109/149

The Floppy Board has arrived! This long-awaited Black Box add-on has been in the making for quite a while, but we've packed it with features that are worth the wait! This sophisticated device allows connection of up to four 5.25" or 3.5" floppy drives (drive sizes may be mixed). Access to these drives will be at parallel bus speed, approaching that of hard disks!

The board consists of 13 special integrated circuit chips, fully powered by the power supply of the Black Box. It has its own on-board microprocessor to take the load off the computer's processor for disk I/O. The board and fits perfectly over the Black Box (inside the custom cases!). It is not a stand-alone device; it must be used in conjunction with the Black Box.

High density disks are supported, so 1.2 meg 5.25" and 1.44 meg 3.5" drives may be connected. This is the only 8-bit controller to fully support these drives and densities! With four 3.5" 1.44 meg drives connected, you can achieve more total storage than a 5 meg hard disk! Archiver compatibility is supported! This means you can back up those titles no longer available. Although it's not as powerful as our Super Archiver, it will have the same editing power, with good backup capability.

Software included with the Floppy Board includes a utility to READ and WRITE IBM and ST disk formats! This will yield the easiest possible way to port text and data files between your 8-bit and ST or PC! This will be compatible with most all of the current formats. Also included is a high-speed sector copier designed to make extremely fast, verified copies of disks. A future upgrade to the Hard Drive Pro Backup (our hard disk backup tool) will make special use of the floppy board, and squeeze even more data on each disk than standard formats allow. It is possible to actually store 1.6 megs of data on a 1.44 meg 3.5" drive, so backing up a full 20 meg hard disks might only take 14 disks! Usage of the Floppy Board's on-board processor will allow overlapping reading and writing, making the backup really fly.

Two versions are available: the basic unit, and the Deluxe version. The basic unit provides the interface necessary for low density drives (360k for 5.25" and 720K for 3.5"), and comes with the IBM/ST transfer utility. The Deluxe version adds the high density capability, adds Archiver compatibility, AND adds the features of the Black Box Enhancer, which include a high-resolution 16 grey scale printer screen dump, and a powerful built-in sector editor, disassembler, and copier (which accesses the full 16 megs possible of hard disk partitions, and uses all available extra memory). Note: the Floppy Board replaces the ROM on the Black Box, so current Black Box Enhancers cannot be used with the Floppy Board.

The basic unit is only $109.95, and the deluxe unit is only $149.95. Add $5 for shipping/handling.

Power products for your XL/XE computer

~~$69.95~~ THE ULTRA SPEED PLUS OS ~~$69.95~~

The Operating System that should be in every XL/XE computer! The **ULTRA SPEED PLUS** puts unbelievable speed and convenience at your fingertips. After using it a while, you'll wonder how you ever got along without it! Use **ANY DOS** to place **ULTRA HIGH SPEED** formats on your disks (with XF551 or modified 1050 drives), reconfigure and boot any drive (1-9 or even your **RAMDISK!**), sector copy single and double density disks to your RAMDISK, activate a built-in **400/800 OS** for compatibility, and much more! Below are a list of features. Only $59.95 + $5 S/H/I.

- **ULTRA SPEED SIO** for most modified drives
- **ULTRA SPEED** is toggleable
- Boot directly from RAMDISK
- Special timer circuits not required for 1 and 2 megs
- Background colors adjustable
- Reverse use of **OPTION** key
- Toggle internal **BASIC**
- Built-in drive number editor (including RAMDISK drive)
- Toggle screen off for up to 40% increase in speed
- **DOUBLE DENSITY RAMDISK** handlers
- **ENTIRE MEMORY TEST** that pinpoints defective RAM chips
- Boot any drive (1-9) on cold start
- Supports ALL XE-compatible memory upgrades up to **two megabytes**
- **THREE** Operating Systems in one **(XL/XE, 400/800, ULTRA SPEED PLUS)**
- **COLD-START** without memory loss
- Built-in mini sector copier
- **RAMDISK** exactly duplicates floppy drive so sector copying and editing are possible

$199.95 THE BLACK BOX $199.95

The **BLACK BOX** is a parallel-port device for your XL or 130XE computer that adds tremendous power to your 8-bit Atari. It is a T-shaped board with two buttons, two switches, and a set of dip switches visible from the outside. The **BLACK BOX** performs three main tasks: interface to a SASI/SCSI bus (for interface to most common hard disks), a parallel printer port, and a RS232 (modem) port. You may partition your hard disk(s) into as many drives as you wish; up to 9 may be active at any given time. By pressing one of the buttons on the **BLACK BOX**, you will enter the configuration menu, where you can re-assign drive numbers, swap partitions in and out, etc. When you exit, you will be returned to your program – undisturbed! Each hard disk partition has its own write-protect flag, and may be set to single or double density. Every hard disk may be write-protected with the flip of a switch. As an option, you may use your computer's XE RAM as a printer buffer, or order the BLACK BOX with 64K of on-board RAM.Another amazing feature of the BLACK BOX is the built-in **screen dump**. By simply pressing a button, the contents of your screen will be dumped to your printer! (You can define text or graphics modes with a switch!) The RS232 port supplies the full spec signals for added compatibility. Its handler takes up no user memory, and can handle 19,200 BAUD! A **machine language monitor** has been added to allow memory disassembly, memory/register changes, and more. The basic **BLACK BOX** unit is $199.95, and $249.95 with 64K RAM (for printer spooler). S/H/I is $8. An optional custom BLACK BOX case is available for $39.95. The Black Box is a product of Computer Software Services... Not the Black Box Corporation.

HARD DISK SYSTEMS

We offer complete, ready-to-run hard disk systems from 5 megs on up! These systems include a hard disk, Black Box, power supply, controller, cables, and software. Everything is pre-formatted and tested, so all you have to do is plug it in and boot! Prices start as low as $399. Call for the latest prices and specials!

INSTALLATION AND REPAIRS

Althoough installation of any of our products is easy, by taking advantage of our free installation offer, you can rest assured it will be done right. All you pay is the freight charges.
For repair of Atari 8-bit computers and drives at reasonable rates, contact our repair department at (716) 429-5639. All work is guaranteed, and there are no minimum estimate fees.

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If you have two or more of the same items needing repair and don't want to spend any money... send them to us and we'll use the parts from both defective items to make one good working unit at NO CHARGE - we'll keep the other defective one for parts! Please call before sending anything in.

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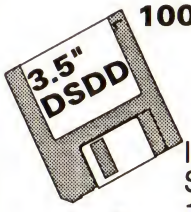

33¢ ea.

In bulk packs of 50
Software overruns 31¢ ea.
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19¢ ea. Bulk lots of 500

20¢ ea. Bulk lots of 50

10 Pak/white box . . . $2.50

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REQUEST OUR FLYER FOR PRICING

3.5" DSDD

	BULK LOTS OF 50 EACH			BOXED/LABELED	
	Quantity				
	500	100	50	100+	10-90
Blue	.42	.45	.49	.49	.53
Colors	.52	.55	.58	.62	.69

Please refer to color chart.

3.5" DSHD

	BULK LOTS OF 50 EACH			BOXED/LABELED	
	Quantity				
	500	100	50	100+	10-90
Black	.68	.72	.77	.79	.85
Colors	.84	.88	.92	.95	.99

Please refer to color chart.

5.25" DSHD

	BULK LOTS OF 50 EACH			BOXED/LABELED	
	Quantity				
	500	100	50	100+	10-90
Black	.42	.45	.48	.49	.54
Colors	.47	.51	.54	.59	.64

Please refer to color chart.

5.25" DSDD

	BULK LOTS OF 50 EACH			BOXED/LABELED	
	Quantity				
	500	100	50	100+	10-90
Black	.25	.28	.30	.33	.36
Colors	.30	.33	.38	.38	.41

Please refer to color chart.

PREMIUM COLOR CHART

	Red	Royal Blue	Green	White	Fog White	Grey	Yellow	Orange	Burgandy	Lt. Blue	Dk. Blue	Black
3.5" DSDD	X		X		X	X	X	X				X
3.5" DSHD	X	X	X	X		X	X	X				
5.25" DSDD	X	X	X	X		X	X	X	X	X	X	
5.25" DSHD	X	X	X	X		X	X	X	X	X	X	

ODDS 'N ENDS

Software Duplication Fallout disks

3.5"DD - 22¢ ea.
3.5"HD - 40¢ ea.
5.25"DD - 13¢ ea.
5.25"HD - 25¢ ea.

12 Piece PC Tool Kit Zippered Case

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3.5" CASES		5.25" Cases / Mailers			
100 cap w/lock	9.00	120 cap w/lock	9.00	5 capacity	1.65
40 capacity	7.00	50 capacity	5.50	4 cap clamshell	.40
10 capacity	1.65	15 capacity	4.90	4 cap mailer	.40
5 capacity	1.65	10 cap smoke	1.65	2 cap mailer	.40
		10 cap SRW	1.65		

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